

ENGINEERING HERITAGE RECOGNITION

STEAMTOWN HERITAGE RAIL CENTRE PETERBOROUGH



ENGINEERS
AUSTRALIA

Engineering Heritage SA
August 2017

Cover photograph: T Class Locomotive 199 was built by James Martin & Co of Gawler and entered service on 4 March 1912
It was taken out of service in 1970; displayed in a public park from 1973 to 1980; then stored in the roundhouse until 2008 when it was given a “cosmetic restoration” and placed on display in the former diesel depot
[Photo: Richard Venus 4244]

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1. Nomination for Engineering Heritage Recognition

The Administrator
Engineering Heritage Australia
Engineering House
11 National Circuit
Barton ACT 2600

Name of work: Steamtown Heritage Rail Centre

Location: Telford Avenue, Peterborough
-32.974534, 138.827523

Owner: District Council of Peterborough
PO Box 121
Peterborough SA 5422
The owner supports this nomination and a letter of agreement is attached

Access to site: The Steamtown Heritage Rail Centre is open every day except Christmas Day from 9:00 am to 5:00 pm; guided tours are available which can be joined at any time
The one hour Sound & Light show is presented every night: starting times varying according to the time of year

Nomination Author: Richard Venus

Nominating Body: Engineering Heritage SA

Nominator: Richard Muncey
Chair, Engineering Heritage SA

Date: 13 August 2017

2. Agreement of Owner



District Council of Peterborough

Email: council@peterborough.sa.gov.au

POSTAL ADDRESS
P.O. BOX 121
PETERBOROUGH S.A. 5422
Phone: (08) 8651 3566
Fax: (08) 8651 3066

Our Ref: 4.66.1

24th July 2017

Learned Society Advisor
Engineering Heritage Australia
Engineers Australia
Engineering House
11 National Circuit
BARTON ACT 2600

Dear Sirs

**Proposal to nominate for Engineering Heritage Recognition:
Steamtown Heritage Rail Centre**

We refer to your proposal to nominate the Steamtown Heritage Rail Centre (SHRC) for National Engineering Heritage recognition, which was forwarded to Mr Pat Kent, SHRC Manager.

We have perused the document and agree with its contents and therefore support this venture and wish you well with the nomination.

We thank you for your ongoing support with the Centre and appreciate your efforts.

Please do not hesitate to contact either Pat Kent at Steamtown or myself at the Council on (08) 8651 3566 if you require anything further with this project.

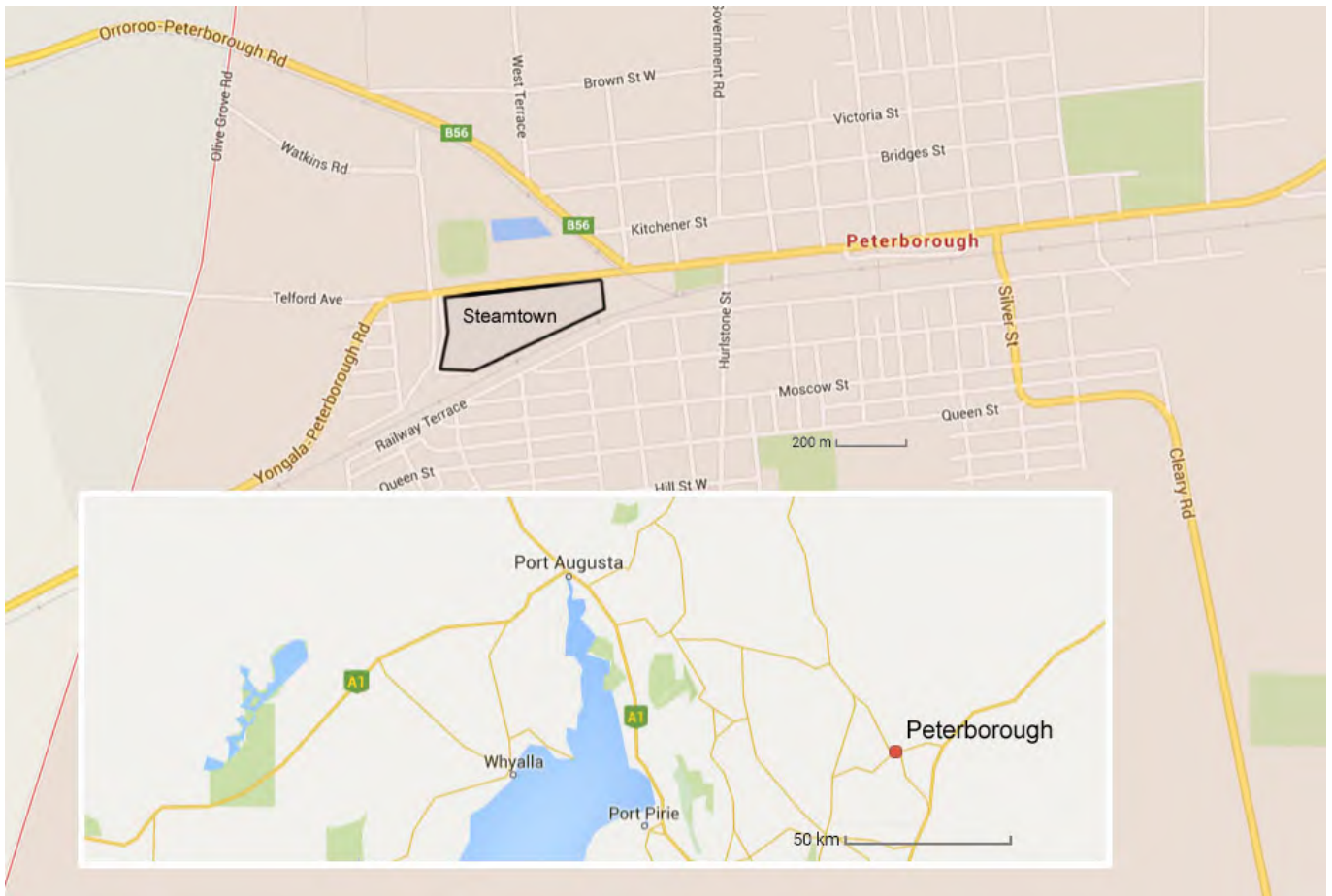
Yours faithfully



Peter McGuinness
Chief Executive Officer

3. Description of Work

Name of Work:	Steamtown Heritage Rail Centre
Other/Formal Names:	Peterborough Divisional Headquarters
Location:	-32.974534, 138.827523 (see map, page 4)
Address:	Telford Avenue, Peterborough
Suburb/Nearest Town:	Peterborough SA 5422
State:	South Australia
Local Government Area:	District Council of Peterborough
Current Owner:	District Council of Peterborough
Original Owner:	South Australian Railways (SAR)
Current Use:	Railway Heritage Centre
Former Use:	Railway Divisional Headquarters, 1880-1976
Proposed Use:	Unchanged
Designer:	South Australian Railways (railway infrastructure)
Builders:	South Australian Railways and various contractors
Date Started:	February 1880 (construction of line from Terowie)
Date Completed:	29 November 2009 – official opening of Steamtown Heritage Rail Centre
Physical Description:	<p>The Steamtown heritage precinct occupies the western end of the railway yard (see ground plan, page 42) and comprises a visitor centre, a display area in the former depot, the roundhouse and turntable which form the viewing area for the nightly Sound & Light show, the weighbridge and scales room, ancillary buildings, overhead oil tanks, and a concrete water tower</p> <p>An extensive and varied collection of locomotives and rolling stock is displayed throughout the precinct</p>
Physical Condition:	<p>Major buildings open to the public are in good condition and well maintained; a new entrance building attached to the diesel depot was completed in 2009</p> <p>The maintenance and restoration of rolling stock and other equipment on display is an ongoing task for Steamtown volunteers</p>
Heritage Listings:	<p>Roundhouse and turntable: State Heritage Register ID 12694</p> <p>(Although not part of the Steamtown precinct, the underground pedestrian subway and the former Railway Superintendent's house at 113 Railway Terrace are also listed on the State Heritage Register)</p>



*Peterborough and Steamtown Location
[Google Maps]*



*W Class locomotive and tender at the entrance to the
Steamtown Heritage Rail Centre
[Photo: Steamtown Heritage Rail Centre]*

4. Assessment of Significance

Historical Significance:	<p>The crossing point of Australia's east-west and north-south railways</p> <p>Former regional headquarters of South Australia's rail network</p> <p>Now a significant tourist attraction as a railway heritage and interpretation centre</p>
Technical Achievement:	<p>Although not unique to Peterborough, new methods and facilities such as the coal gantry and roundhouse were introduced in the 1920s to improve operational efficiency</p>
Social Impact:	<p>Provided rapid access to market for the district's produce</p> <p>Peterborough itself was a railway town and the railways were a major source of employment; now, in the 21st century, its railway heritage in the form of Steamtown makes an important contribution to the local economy</p>
Significant People:	<p>William A Webb, SA Railway Commissioner</p> <p>Charles and Edwin Millar, railway contractors</p>
Rarity:	<p>In the 1970s, Peterborough and Gladstone were the only stations in Australia (and possibly the world) where all three gauges were operational in the same yard</p>
Representativeness:	<p>The roundhouse and turntable, originally with 23 stalls, is the largest remaining structure of its kind in South Australia</p>
Integrity/Intactness:	<p>The Steamtown heritage precinct includes the former depot, the roundhouse and turntable, the weighbridge and scales room, ancillary buildings, overhead oil tanks, and a concrete water tower</p> <p>Original railway buildings have been repurposed and those accessed by the public are in good repair and well-maintained</p> <p>The locomotives and rolling stock, although no longer needed to be operational, are also well-maintained and opportunities are taken to repair or refurbish units as time and funds permit</p>
Research Potential:	<p>This nomination document provides a concise history of the development of the railway facilities at Peterborough.</p> <p>Although much has been written about the town and the rolling stock, there were large gaps in the story which this document has attempted to fill. However, there is still scope for more detailed research about Peterborough's rail history, especially the era of the Commonwealth Railways and the struggle to achieve standardisation.</p> <p>There is a significant story to research and tell in the work of Australian railway contractors such as Charles and Edwin Millar who were also pioneers of the Western Australian timber industry.</p>

5. Petersburg: Narrow Gauge Junction (1880-1918)

SA completed its first major country broad gauge (BG) line to Gawler in 1857. This was extended in stages to the copper mining towns of Kapunda (1860) and Burra (1870).

In the 1870s, SA built a number of narrow gauge (NG) lines in order to get grain and other produce to coastal ports at Port Augusta, Port Pirie, and Port Wakefield.¹ (Two other ports were established in the South East at Kingston and Beachport.) They were relatively cheap because of their light construction and in subsequent years were extended by stages further inland to serve their respective districts.

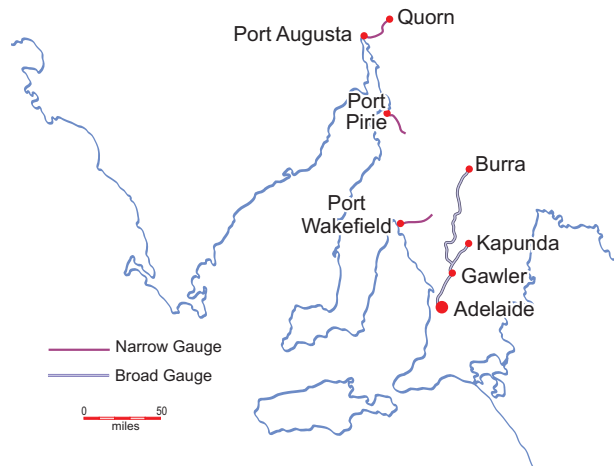


Figure 1: Early railways in South Australia

5.1. The “Yongala” Junction

In 1876, silver was discovered at Umberumberka Creek in NSW and the town of Silverton was supplied by bullock teams from the rail head at Burra and then Hallett and Terowie as the BG line was extended further north. In 1878 the Government announced plans to connect the two northern coastal lines from Port Pirie and Port Augusta with an NG extension from Terowie. From the new junction, a line would be built north-east to New South Wales, meeting the border at Cockburn and joining the Silverton Tramway. Minerals from Broken Hill could now be transported directly to Port Pirie on the NG line or transferred to the BG line and sent to Port Adelaide. This break of gauge would prove to be a long-standing headache for South Australian railways and was inherited by the Commonwealth Railways (see section 6.3, Rail Standardisation).



Figure 2: The NG extension to Cockburn on the colony border met a tramway from Silverton

¹ C B Anderson, “Railways” in Fenner et al, 1936, *The Centenary History of South Australia*, Royal Geographical Society of Australasia (SA Branch), Adelaide, p214

The railway is the first link in a line to connect the southern and northern seaboards of the Continent, and the progress which has been made during the last few years in these colonies unmistakeably tells us that a transcontinental railway will shortly be an accomplished fact. Such a line, with the branches which are sure quickly to spring into existence, means the throwing open to settlement of an immense area of country which would otherwise have been quite unapproachable. In this fact, and in the trade which may in consequence be established with the East, we have the possibilities of such development and such wealth as to exceed the imaginings of the most sanguine.

The Bill authorising the work had been passed on 15 July 1876 and tenders were called in August 1877 for the first stage to the Government Gums waterhole¹¹ where a township named Farina was gazetted on 21 March 1878.¹² A few months later the township of Quorn was established where the railway emerged from the Pichirichi Pass.¹³ The railway was extended to Angle Pole (later renamed Oodnadatta) in 1889 and a line from here would eventually reach Alice Springs in 1929. However, rather than happening “shortly”, it would take until 2004 before a line to the northern seaboard (Darwin) was finally opened.



Figure 4: First stage of the Great Northern Railway: Port Augusta to Government Gums (Farina)

In July 1878 a Bill had been introduced for a line referred to as the Terowie to Pichirichi extension. The NG line from Terowie to Petersburg was opened to traffic on 11 May 1881. It had been completed some time before but trains couldn't use it because there was no water in the dams for the locomotive boilers.¹⁴ This extension also connected Adelaide and Port Pirie through Jamestown and Crystal Brook.

In July 1881 the Great Northern Railway had been completed as far as Beltana¹⁵ and on 22 November the extension north of Petersburg to Orroroo was opened by the Governor.¹⁶ The “last pin” of the line between Orroroo and Quorn was driven on 7 March 1882: the Great Northern line was now within six miles of Farina.¹⁷ The last dogspike was driven with appropriate ceremony by John Reid, the Resident Engineer, on 1 May¹⁸ and the Great Northern Railway (at least to Farina) was declared open by the Governor at a

11 “The Port Augusta and Government Gums Railway”, *SA Register*, 18 January 1878, pp5g-6ab

12 “New Township”, *SA Register*, 23 March 1878, p7d

13 “A New Town”, *Express and Telegraph*, 17 May 1878, p2d

14 “Terowie and Petersburg Railway”, *Evening Journal*, 11 May 1881, p3f

15 “The Great Northern Railway | Opening of the Line to Beltana”, *Adelaide Observer*, 9 July 1881, p31e

16 “Opening of the Railway from Petersburg to Orroroo”, *SA Register*, 23 November 1881, pp5g

17 *SA Advertiser*, 8 March 1882, p4f

18 *Adelaide Observer*, 6 May 1882, p15e

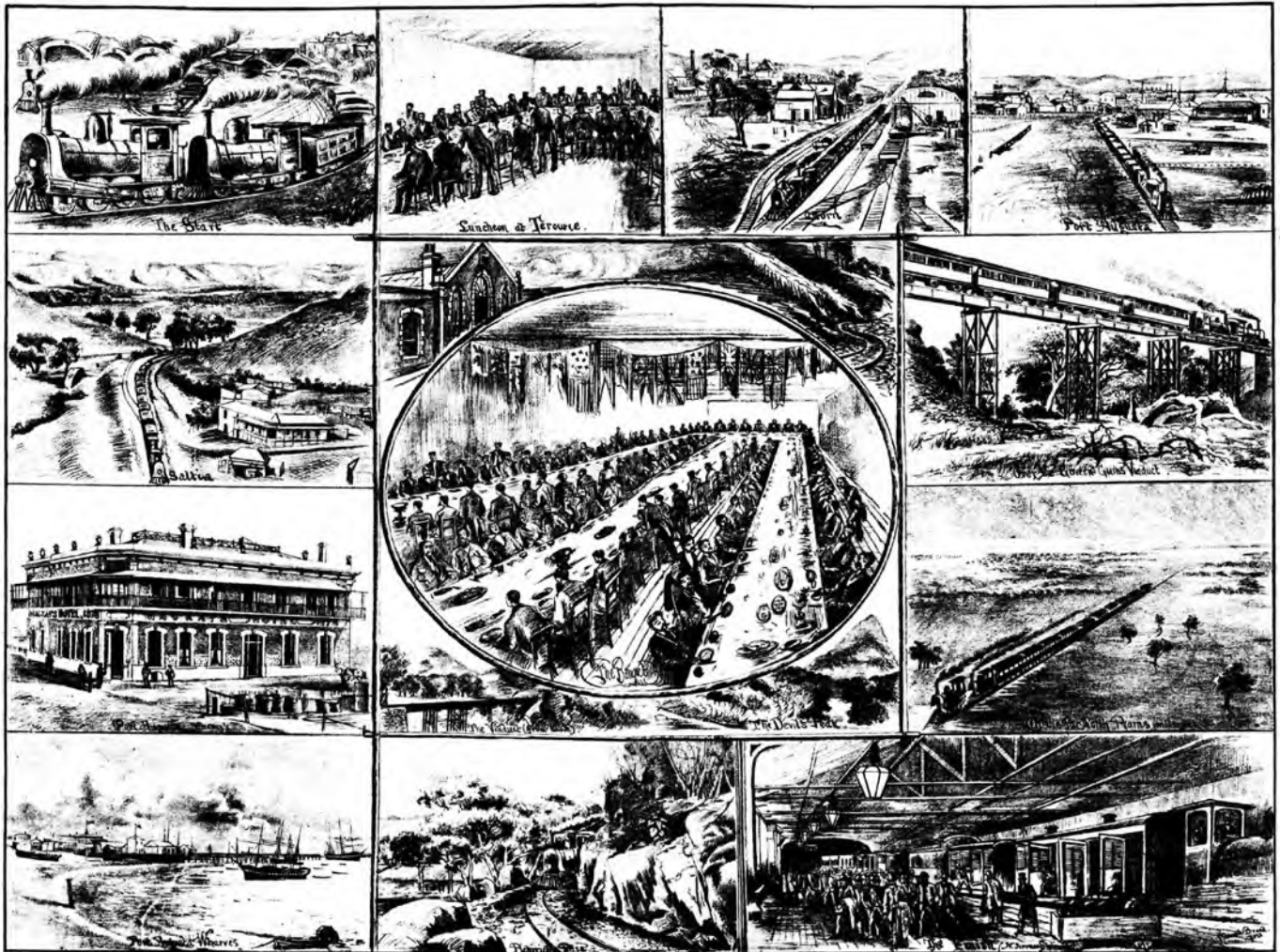
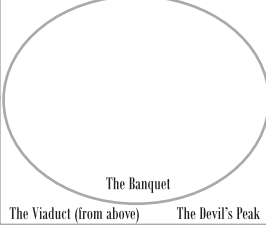


Figure 5: Opening of the Quorn and Farina Railway
[Frearson's Monthly Illustrated Adelaide News,
1 June 1882, pp88-89 – key at right]

ceremony held in Quorn on 17 May 1882. The line from Petersburg was also declared open that day.¹⁹

Despite the warning about costs, the traditional banquet was held. South Australia now had the longest continuous line of railway in the country – 406½ miles (albeit with a break of gauge).²⁰ The vision of “direct communication” with Brisbane was held out once the New South Wales network was extended to Wilcannia in the north-western corner.²¹

The Start	Luncheon at Terowie	Quorn	Port Augusta
Saltia			Over the Govern Gums Viaduct
Port Augusta (McKay's)			On the Far North Plains
Port Augusta Wharves	The Viaduct (from above)	The Devil's Peak	The Finish
	Pichirichi Pass		

The change of gauge remained of concern and on 26 September 1882 a meeting was held at Petersburg to petition the Government to extend the broad gauge line from Terowie. “This being the junction of the two narrow gauge lines it was the proper place for the break-of-gauge,” said the *Burra Record*.²²

Nevertheless, Petersburg was now the main junction in South Australia’s railway network: the final piece would be an intercolonial connection ... or at least one to the border.

19 “Direct Railway Communication between Adelaide and Government Gums”, *SA Register*, 15 May 1882, p6a

20 “The Great Northern Railway”, *SA Register*, 15 May 1882, p6a

21 “Three Railway Bills”, *SA Register*, 23 September 1884, p4g

22 “Broad Gauge to Petersburg and North-East Railway Extension”, *Burra Record*, 6 October 1882, p2g

5.2. Petersburg-Silverton

Silver had been discovered just over the border in New South Wales in 1881²³ and two small mines were established at Thackaringa and Umberumberka. Shares in the Umberumberka Silver Lead Mining company were offered to the public in October 1882²⁴ and the *Port Augusta Dispatch* suggested it would not be inappropriate to change the name of the place to “Silvertown”.²⁵ Which they did in November 1883 when a post office was gazetted.²⁶

By January 1884 Silverton had a population of about 800, mostly living in tents and huts but a number of “edifices” had been erected.²⁷ In June Sydney’s *Daily Telegraph* reported:²⁸

The [South Australian] Government have declared their intention of constructing a railway to the South Australian border, which will be within 20 miles of Silverton, and will ensure the whole of the trade coming to South Australia. Up to the present the place has been so completely ignored by Sydney that the whole of the trade goes through South Australia, and during the past month there were nearly 200 teams, carrying about 1,000 tons of goods between Silverton and Terowie, the nearest South Australian town.

The *Adelaide Advertiser* said:²⁹

There can be little doubt that the earliest important railway discussion in Parliament will relate to the construction of a branch line to catch the traffic of the Silverton mining district ... Probably there will be little or no opposition to the railway, but there will be a great conflict of opinion with regard to the route that should be chosen.

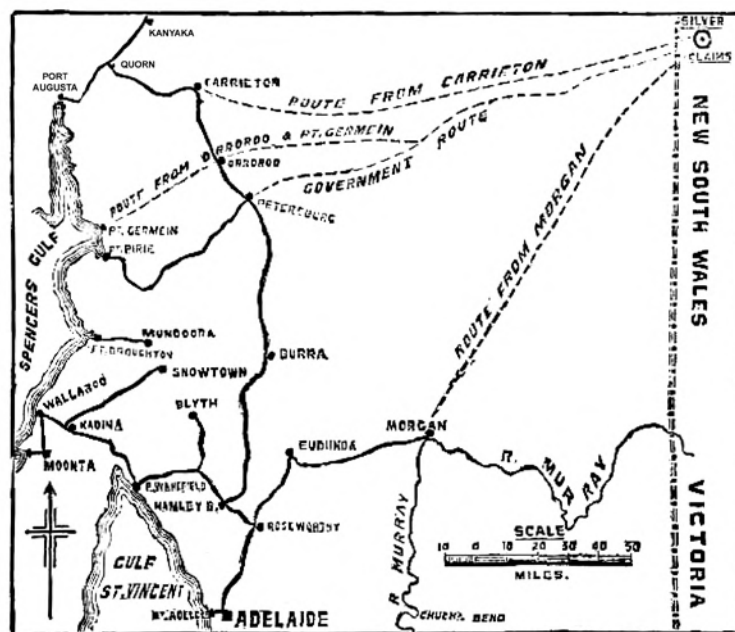


Figure 6: Railway Routes to Silverton [Express and Telegraph, 22 July 1884, p3bc]

In July the newly-appointed Commissioner of Public Works, Thomas Playford, told the House of Assembly that, irrespective of the route finally chosen, he intended to order rails suitable for a narrow gauge line. The Silverton Railway Bill was passed on 5 November 1884 after two last-ditch attempts to change the starting point – one to Terowie and one to Orroroo.³⁰ Petersburg celebrated by sending telegrams to their “Terowie friends” and firing rifles into the air until they ran out of ammunition.³¹

23 *Argus*, 1 August 1881, p5d; Anita Woods says silver was discovered in 1876 [Woods, 1986, p13] and “Overlander” wrote to the *Port Augusta Dispatch* saying that a galena (silver-lead) mine had been discovered in Umberumberka in 1876 [7 October 1882, p6a]; however, no independent report could be found in the newspapers to verify this

24 *SA Register*, 11 October 1882, p2bc

25 *Port Augusta Dispatch and Flinders’ Advertiser*, 7 October 1882, p4f [hereafter *Port Augusta Dispatch*]

26 “Wilcannia News”, *SA Advertiser*, 14 November 1883, p6b

27 “The Barrier Silver Mines”, *Kapunda Herald*, 18 January 1884, p3f

28 “The Silver Mines In The Barrier Ranges”, *Daily Telegraph*, 26 June 1884, p5a

29 *SA Advertiser*, 26 June 1884 p4ef

30 “The Silverton Railway Bill Passed”, *Evening Journal*, 6 November 1884, p3f

31 *The Areas’ Express* (Booyoollee), 25 November 1884, p2e

The 155 mile line was expected to cost £540 000³² and the Government wasted no time in starting work. A survey party left Petersburg on 1 December³³ and rails and sleepers were ordered, the latter coming from the Wirrabara Forest.³⁴ In March, the first two loads of sleepers from Wirrabara were delivered to the Laura railway station³⁵ and, a few weeks later, the barque *Day Dawn* arrived in Port Pirie with 11 200 jarrah sleepers from Western Australia.³⁶

Tenders for the construction of the railway were called in April, the scope of the project also including “necessary station buildings, &c”.³⁷ Seven tenders were received for the 149 mile line (which had obviously been shortened a bit) and that of Millar brothers (Charles and Edwin) was accepted in May. The *Adelaide Observer* gave the precise figure – £179 411 1s 9d.³⁸

The South Australian line, of course, had to stop at the border where a township was planned. In June the Government decided to move the terminus a few miles south near a reliable source of water known as Halliday’s dam which “holds a plentiful supply, which the future residents of the new township and the railway engines will be able to get”.³⁹ (The Town was proclaimed on 29 April 1886⁴⁰ and named Cockburn in honour of Sir John Cockburn, a former Mayor of Jamestown and now Member for Burra who was then Minister of Education and later Premier of SA.⁴¹)

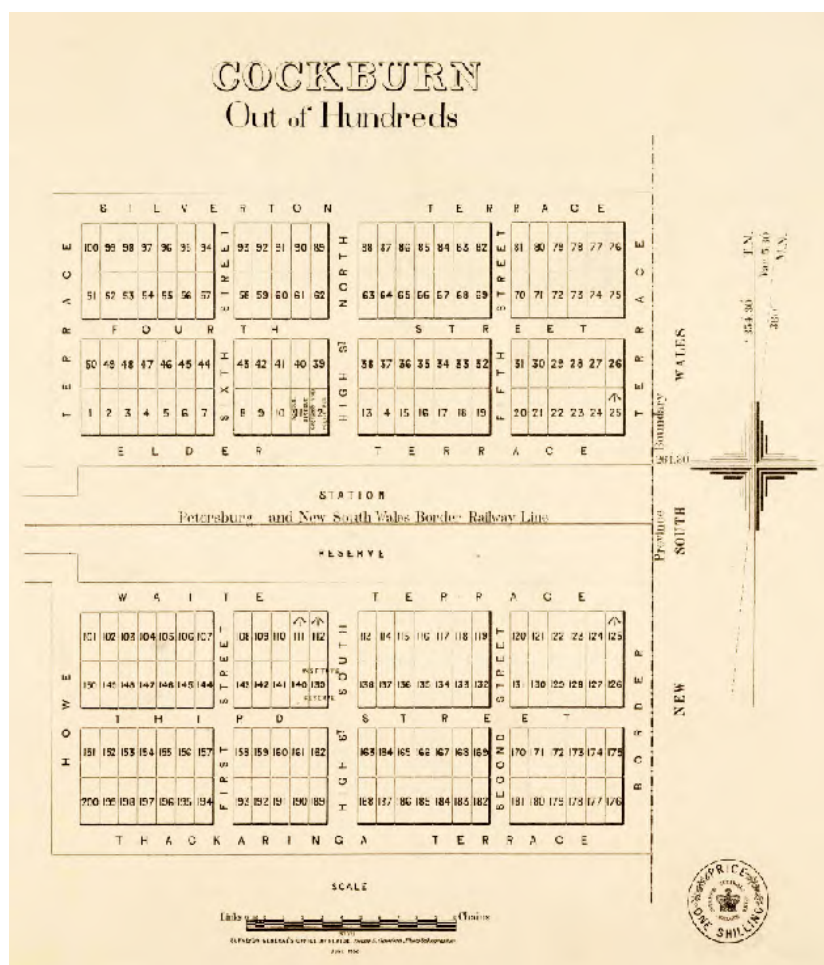


Figure 7: Plan of Cockburn township, June 1890
[National Library of Australia RM 2737/52]

32 “Railways Authorized”, *SA Register*, 31 December 1884, p6f

33 *Adelaide Observer*, 6 December 1884, p16c

34 *SA Advertiser*, 15 December 1884, p5a

35 *SA Advertiser*, 12 March 1885, p5e

36 *Adelaide Observer*, 28 March 1885, p28b

37 *Terowie Enterprise*, 17 April 1885, p2d

38 “The Silverton Railway”, *Adelaide Observer*, 16 May 1885, p29a

39 *Express and Telegraph*, 11 June 1885, p3d

40 *SA Government Gazette*, No 17, 29 April 1886, p829

41 Geoffrey H Manning, 1986, *The Romance of Place Names of South Australia*, G H Manning, Adelaide, p44a (interestingly, Rodney Cockburn didn’t include Cockburn in his book, *What’s in a Name ...*)



Figure 8: Shipping silver ingots at Port Pirie, c1885
[State Library of SA B61941]

Millar brothers established a works depot near Petersburg in June 1885⁴² and within a few weeks had the first seven miles of earthworks completed, ready for sleepers.⁴³ In August, the *Astronomer* unloaded the first shipment of rails and ironwork for the line at Port Pirie⁴⁴ and back-loaded the first consignment of ore from the Britannia and Scotia Silver Mining Company at Silverton, both events being celebrated in true Victorian style with a banquet at the Royal Exchange Hotel.⁴⁵

The potential output from the Silverton deposits had been seriously underestimated and, in January 1886, concerns were expressed about the load-carrying capacity of the lightly-constructed line and the need to restrict traffic to a speed of 10 miles an hour.⁴⁶ And it was not just one way traffic: the development of smelters in the Silverton district meant that large supplies of coke were required.⁴⁷

When the line was first projected no one had any idea the Silverton district was going to develop like it had, and that so many thousand tons of ore would be raised. The carriage of coke was never raised, because no one dreamt of smelters being put to work.

Following an inspection of the route, the additional cost of the strengthening works was estimated to be £30 000⁴⁸ or less than 2% of the original price and Millar brothers began carrying out the additional works.⁴⁹ One of the first actions was to increase the depth of ballast between the sleepers from two to four inches.⁵⁰ The *Evening Journal* explained:⁵¹

It was at first intended to make the line what is known as a “surface grade” railway without bridges or culverts, the rate of speed not to exceed 10 miles an hour. The Government, in response to representations that the line would not be sufficient for traffic if carried out on these cheap principles, decided to have it constructed on a more expensive and permanent plan, and the rate of speed practicable will be 30 miles an hour. A number of bridges have been erected, and others are in course of construction. The

42 *SA Register*, 13 June 1885, p3h

43 “The Silverton Railway”, *Adelaide Observer*, 11 July 1885, p31b

44 *Port Augusta Dispatch*, 14 August 1885, p3c

45 “Arrival of the First Load of Silverton Ore at Port Pirie”, *The Areas’ Express* (Booyoollee), 21 August 1885, p3a

46 “The Silverton Railway and its Carrying Capacity”, *SA Register*, 26 January 1886, p6e

47 “Deputations: The Silverton Railway”, *SA Register*, 3 February 1886, p6f

48 “The Silverton Railway”, *Terowie Enterprise*, 19 February 1886, p2d

49 *Express and Telegraph*, 1 March 1886, p2b

50 *SA Register*, Wednesday 3 February 1886, p6f

51 “Petersburg and Silverton Railway”, *Evening Journal*, 10 May 1886, p2d

contract for the manufacture of these bridges has been let by Messrs. Millar to Messrs. J. Martin and Co. of Gawler. Altogether there will be 370 spans of 13 feet, 61 spans of 20 feet and 15 spans of 40 feet. The total weight will amount to 600 tons. Notwithstanding the delay incurred by the strengthening of the line, the contractors expect to be able to complete it within the specified time, viz., by June, 1887.

In the meantime, the people of Petersburg again pressed their case to have the broad gauge line extended from Terowie: now that the line to Silverton was being constructed, “Petersburg being the junction of four important lines of railway was the proper and only place where the break of gauge should take place”.⁵²

The line to Cockburn was “practically” completed in February 1887⁵³ but not handed over to the Government until 14 June.⁵⁴ In the meantime, as the *Burra Record* pointed out, Millar brothers had the free use of the line to carry all their materials for the Silverton line plus they were netting £1000 a week carrying “a large amount of general merchandise ... What are the authorities about to allow this sort of thing to go on?”⁵⁵

Freight wasn’t the only thing to be carried on the line. Even before the line was officially opened, the contractors, Millar brothers, provided a passenger service – although the conditions left a lot to be desired. In November 1886, heavy rains fell and passengers in the open wagons (about a hundred diggers working at Silverton and several women and children) were soaked to the skin.⁵⁶

After travelling 17 miles the guard decided to return to Petersburg. For several miles the rails could not be seen, and the engine consequently could travel at a snail’s pace only. The water was rushing furiously both down the line and across it, the drains made upon each side being altogether inadequate for the purpose intended. In places the water on each side of the line must have been 4 feet deep, the fences being completely hidden from view. The strain put upon the earthworks was severe; and if they come through the trial satisfactorily the proof of the line being well laid by Millar Brothers should be fully established.

On one memorable occasion, a rather unusual passenger brought the train to a halt. No details of the date were given by Anita Woods⁵⁷ but Wirth’s Circus had been a regular visitor to Petersburg since 1889 and travelled by train. On the day in question, one of the elephants discovered he could get his trunk into the truck in front and started throwing things off the train. So they shifted him to the front of the train, behind the coal tender, on the assumption that the contents would not appeal to him. And they didn’t. However, the elephant found the water tank much more interesting and, by drinking some and squirting the rest around, he brought the train to halt. They had to send up another train with a water tank.

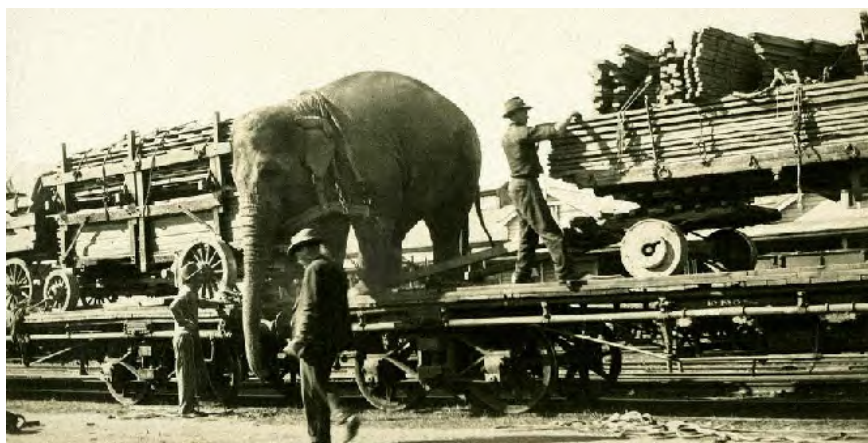


Figure 9: Elephant on a train at Lismore, 1925
[John Oxley Collection, State Library of Queensland 6646/0001/0013]

52 “Meeting at Petersburg”, *Adelaide Observer*, 3 April 1886, p36d

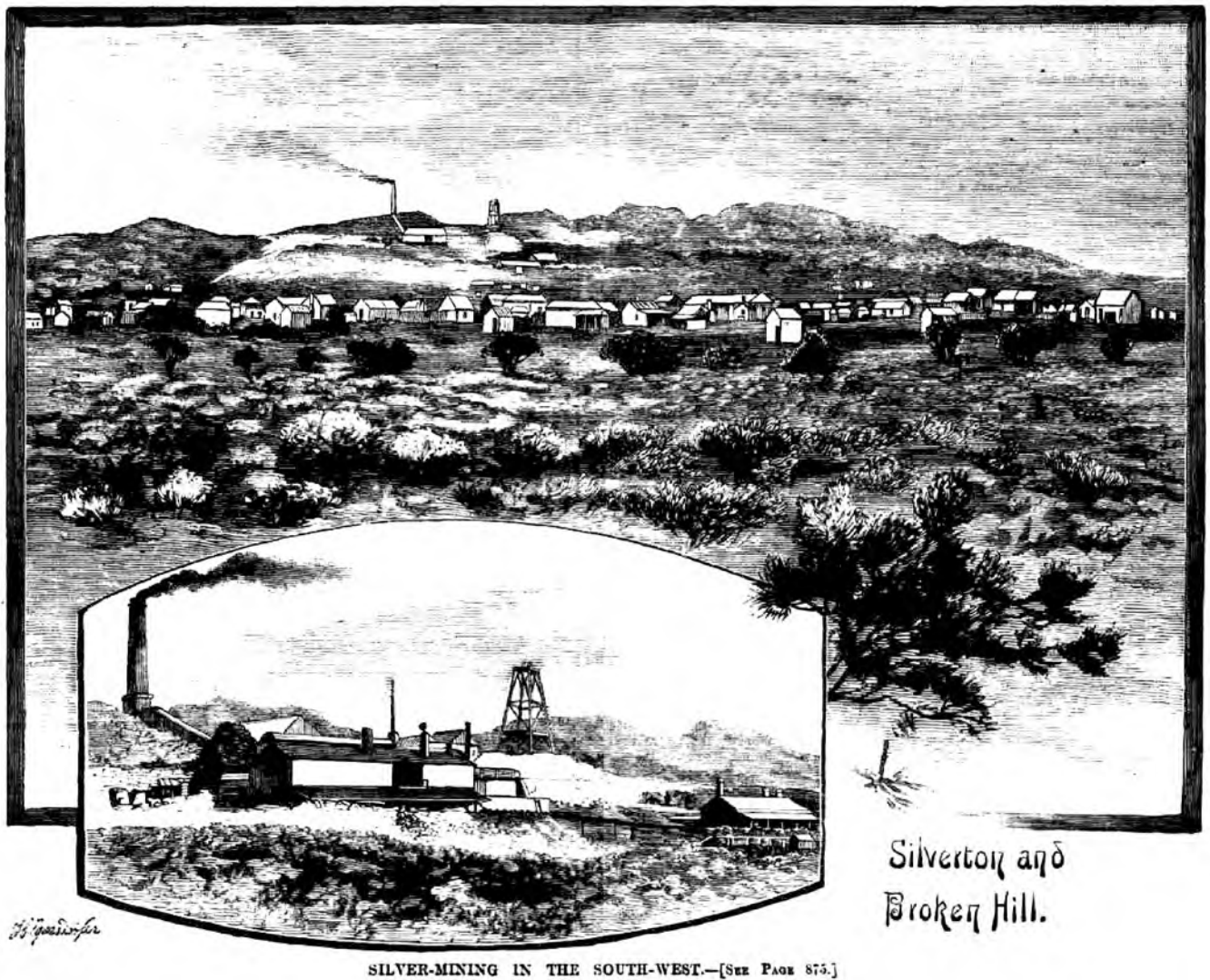
53 *Burra Record*, 1 March 1887, p2e

54 *SA Advertiser*, 14 June 1887, p4g

55 *Burra Record*, 1 March 1887, p2e

56 *Adelaide Observer*, 6 November 1886, p10d

57 Woods, 1986, p114



SILVER-MINING IN THE SOUTH-WEST.—[SEE PAGE 875.]

Figure 10: Silverton and Broken Hill
[Sydney Mail and New South Wales Advertiser, 23 April 1887, p875]

5.3. Silverton Tramway Company

The New South Wales Government wouldn't construct a line to Cockburn and so, not one, but two private companies were formed to undertake the job.⁵⁸ Given the arguments that went on in South Australia, it should come as no surprise that a local dispute broke out about where the line should start: Silverton or Broken Hill. Silverton said Broken Hill was "merely a "mining camp"; water was scarce, and it would always be an unfit site for a large town on account of the fumes from the furnaces producing lead-poisoning and proving otherwise disagreeable to the inhabitants". On the other hand, Broken Hill was "by far the richest mine on the Barrier, has £850,000 invested there against £20,000 at Silverton, and is destined to exceed the latter in population in a very short time".⁵⁹ They soon amalgamated and the Silverton Tramway Company (STC) was formed.

The *Silverton Tramway Act of 1886* was passed by the New South Wales Government, permitting the narrow gauge line to be built by the Silverton Tramway Company by allowing them to cross government land; the Bill was given Royal assent in October 1886⁶⁰ and a prospectus was advertised in December.⁶¹

The Company is called a Tramway Company to accord with the foregoing Act of Parliament, but the line which it will construct will be equal in gauge and structure to the South Australian Railway Line in every respect; and the business the Company will conduct and carry out will be that of a Railway Company.

⁵⁸ "A Trip to Silverton", *Border Watch*, 9 January 1886, p4a

⁵⁹ "Silverton Tramways", *Terowie Enterprise*, 7 May 1886, p2b

⁶⁰ Legislative Assembly", *Evening News* (Sydney), 15 October 1886, p3c

⁶¹ *Sydney Morning Herald*, 11 December 1886 p5b

It will construct a Railway from the terminus of the Railway now being constructed by the South Australian Government at the Border, to Broken Hill via Silverton, in the territory of New South Wales, the distance being 18 miles to Silverton, and 15 miles thence to Broken Hill, or about 33 miles in all.

The Company proposes to enter into an agreement with the South Australian Railway Department to run their rolling-stock over this Company's Line, the Government being favourable to such an arrangement.

It is intended that the Line shall be constructed throughout under the supervision of that Department, and to the satisfaction of the New South Wales Commissioner of Railways, as required by the Act.

It is proposed to commence the construction of the line at once.

The prospectus included a table of imports and exports to and from Silverton for the nine months ending 30 September 1886: these included exports of 410 119 ounces of silver, 1347 tons of silver ore, and 734 tons of wool – a total value “all to South Australia” of £386 832.⁶² However, there were some who felt the proposed connection would be to South Australia's detriment in providing New South Wales merchants with a short-cut to Sydney via Port Pirie and around the coast; this would be a cheaper way to carry goods than on an overland railway connection via Wilcannia.⁶³

Millar Brothers were the successful tenderers⁶⁴ and, as work on the South Australian section neared completion, their attention turned to the other side of the border.⁶⁵

The construction of the Silverton tramway will be pushed on with all speed, and according to Mr. Baxter, Messrs. Millar Brothers representative, will be completed to Broken Hill in six months. The surveyors have begun, and in a fortnight the graders will follow them, so that no time will be lost.

The sleepers would come from SA: they would be delivered to Laura “at the rate of at least 5,000 per month, and extra sawyers will be required at Wirrabara in order to carry on the work”.⁶⁶ By April, the order for 35 000 sleepers had been completed.⁶⁷

In July 1887, STC had to apply to Parliament for power to deviate by up to a mile on either side of “the exact line of Tramway” specified in the Act⁶⁸ and by August the rails were laid to within five miles of Silverton. Baxter, the project manager, said he expected to have the line to Silverton finished by 1 September and to “the Broken Hill” by 1 November.⁶⁹

It is expected that the whole section from the Border to the Broken Hill will be completed and handed over to the Company by December 1, when, considering the mineral and pastoral wealth of this district, only in its infancy, it is questionable whether any railway in Australia will produce better results ...

On Friday 16 September, there was what the *Sydney Morning Herald* termed “an informal opening” of the line in Silverton. A public holiday had been proclaimed in the district but “the proceedings on the whole were rather tame”. A party of politicians travelled up from Adelaide, including the Premier, Thomas Playford; the Attorney-General, Charles Kingston; and the Commissioner of Public Works, Alfred Catt. NSW politicians were conspicuous by their absence. At a banquet hosted by the Mayor of Silverton, Premier Playford said:⁷⁰

Geographically the Barrier was connected with South Australia. The South Australian ports were the direct outlet for the Barrier trade reaching the seaboard. Owing to the enormous mineral development of the Barrier struggling farmers in South Australia had been able to hold on to their land. Their teams had been employed in carting to the mines, and farmers were thus enabled to make money outside of agriculture.

62 *Sydney Morning Herald*, 11 December 1886 p5b

63 “A Strange Request”, *SA Weekly Chronicle*, 8 January 1887, p9f

64 *Adelaide Observer*, 18 December 1886, p29d

65 *SA Register*, 24 December 1886, p5h

66 *Adelaide Observer*, 25 December 1886, p9b

67 *SA Register*, 15 April 1887, p5b

68 “The Silverton Tramway Company, Limited”, *Sydney Morning Herald* 23 July 1887, p5e

69 *Adelaide Observer*, 20 August 1887, p33de

70 *Sydney Morning Herald*, 17 September 1887, p9c



Figure 11: Petersburg railway yard in 1890
[Lionel Noble collection]

5.4 Northern Division, South Australian Railways

The history of the South Australian Government's involvement with railways dates back to 1854 when it constructed the horse-drawn tramway between Goolwa and Port Elliot. On 19 June 1856, Act No 27 received assent. Its purpose was:⁷¹

... to authorize the appointment of South Australian Railway Commissioners, and to vest in them title construction of the Adelaide City and Port Railway, and of the Adelaide and Gawler Town Railway, and to authorize the raising of a farther sum of Thirty-six Thousand Pounds for the completion of the Adelaide City and Port Railway

In March 1857, the first Railway Commissioners were appointed.⁷² Railway construction was the responsibility of the Commissioner of Public Works and in his annual report for 1856-57, he stated:⁷³

The South Australian Railway Commissioners have shown the utmost willingness to keep me advised of their proceedings. Their operations have been most energetically conducted, and have produced, as I confidently believe, permanent advantages to the community at large.

Petersburg became the headquarters for what was known as the Northern Division of the South Australian Railways and assumed responsibility for all operational and maintenance work: Islington workshops in Adelaide only handled new construction and major refurbishments. In February 1882, F W (Frederick) Stevens was appointed as Resident Engineer, replacing J W James.⁷⁴ In October, tenders were called for the construction of a residence and offices:⁷⁵ the "habitation" was completed in June 1883 and described as "being of a substantial character, and situated on an elevated site, presents a marked improvement to the township".⁷⁶ However, it and the other railway properties became a source of tension between the Railways and the Petersburg Corporation which wanted to levy rates. The case went to court in January 1890 with Stevens and other Railways employees, including engine-drivers and porters, appealing against the rates. The lawyer provided by the Crown Solicitor pointed out that the Resident Engineer's duties required him to live on the premises. The Corporation's lawyer argued that he lived there rent-free and that the property should be ratable. The Magistrate upheld the appeal but commented that the law should be changed to allow the Corporation to levy rates, "especially as the Government subsidies to corporations and district councils had almost or nearly ceased".⁷⁷

An indication of the facilities in the railway cottages (or rather lack of them) is given by a complaint registered by the Corporation the following year:⁷⁸

71 "The Government Gazette", *Adelaide Observer*, 28 June 1856, p8a

72 "Appointments", *Adelaide Observer*, 28 March 1857, p8a

73 *Adelaide Observer*, 22 August 1857, p7f

74 *SA Weekly Chronicle*, 25 February 1882, p22a

75 "Government Tenders", *Evening Journal*, 17 October 1882, p2g

76 *Adelaide Observer*, 23 June 1883, p15e

77 "The Rating of Government Property", *Express and Telegraph*, 24 January 1890, p2d

78 *Petersburg Times*, 23 October 1891, p4f

The attention of the Resident Engineer to be called to the practice of the occupants of the railway cottages in burying their night soil amongst the cinders on the railway reserve, and in any future cases summonses to be issued.

In May 1891, the *Yorke's Peninsula Advertiser* noted the towns's rapid expansion:⁷⁹

... almost entirely due to its important position as the junction of the northern system of railways. The railway station yard is the busiest out of Adelaide. ... The probability is that there will also be a considerable increase, as the Government workshops will shortly be erected here. This will mean that about 40 men with their families will come from Port Pirie. Where they will live is a mystery, because although houses are going up in all directions, they are all let before being built. Families are compelled to live in the most primitive structures. ...

5.5 Workshop Facilities

A reporter from the *Adelaide Observer* visited the Locomotive Workshops in 1904 and described what he saw:⁸⁰

Half an hour in a large machinery shop, where the noise is deafening, where innumerable belts are whirring and twirling in a ceaseless maze, and where huge pieces of machinery slowly but irresistibly perform allotted functions, is quite bewildering. Nearly everything connected with the repairing of locomotives is carried out at the Petersburg shops, but when an engine requires to be refitted with a boiler, for instance, it is usually "unlimbered" and sent to Islington. ...

Forming an integral part of the main building is a large storeroom, where every conceivable object needed in connection with the maintenance of engines, carriages, and trucks is stored for immediate service. A thorough check is kept on the contents of this valuable "curiosity shop," and not a screw or a nut may be obtained from it without a written order from the foreman. Cleanliness, neatness, and methodical arrangement are the leading characteristics of the Petersburg shops and yards. No untidy corners and jumbled heaps of iron are there, but the yard is like the floor of a ballroom. No fewer than 220 men are employed in the works ... and of these 70 to 80 are in the shops every day. They include boilermakers, carpenters, lifters, tinsmiths, blacksmiths, wheelturners, cleaners, and various assistants, and are irrespective of the running men.

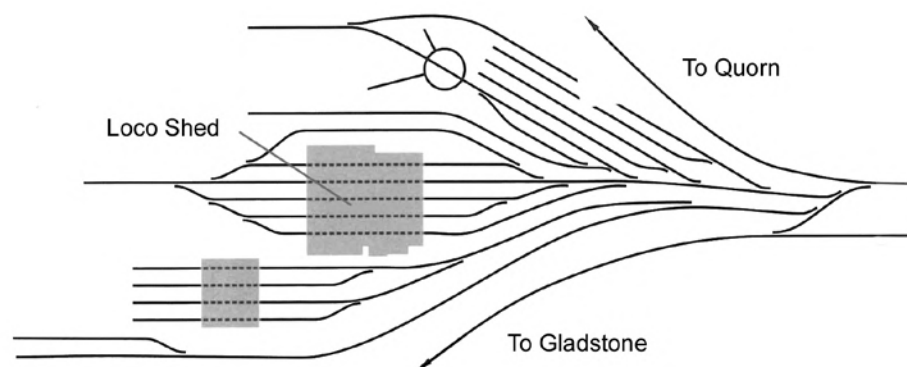


Figure 12: Western end of Petersburg railway yard, 1907

[From Bulletin of the Australian Railway Society, October 2006, p375: GSH-ARHS/nsw0607]

The locomotive sheds were the straight-through type providing the most rudimentary cover for men and machines. Given that snow was not uncommon in Petersburg, the working conditions would not have been very pleasant. Following storm damage in 1904, William Miller (the Member for Burra Burra) asked: "Is it the intention of the Government, when repairing the new locomotive shed, at Petersburg, to have the sides walled up to prevent it from being blown away again, at the same time giving the men

⁷⁹ "Petersburg", *Yorke's Peninsula Advertiser*, 29 May 1891, p2g

⁸⁰ "Petersburg: Its Industries and Works", *Adelaide Observer*, 28 May 1904, p42bc

a better place to work in, instead of, as formerly, an open shed?" The Chief Secretary responded with a report from the Railways Commissioner: "It is not proposed to put up expensive buildings, as suggested, but that the necessary repairs will be carried out."⁸¹ His parliamentary colleague, William Rounsevell, followed upon with another question in the House of Assembly:⁸²

[Rounsevell asked] whether the Government would direct that in the re-erection of the railway workshop at Petersburg, which had lately been wrecked, the sides of the building should be filled in, so that the men could work something like comfort.

The CHIEF SECRETARY said he would draw the Railways Commissioner's attention to the question.

Things would only get better for the employees in the next phase of Petersburg's story with a new name and an expanded role in the South Australian Railways network.

5.6 Crossing the Tracks

The fact that the railway ran through the middle of the town presented another problem. The railway station and yards had been established on Section 216 but the commercial centre of the town – the shops and offices and public buildings, including the magnificent town hall – had been established on Section 218 to the north (see Hundred of Yongala map, page 7):⁸³

The Mayor (Mr W. Threadgold) referred to the fact of the station being on the wrong side of the line, owing to which circumstance all passengers had to cross the rails, then pointed out the necessity that existed for an overway bridge or sub-way, owing to the crowded state of the yard at times during the day and night, and the large amount of shunting that was carried out. The crossing of the line under such circumstances was fraught with considerable danger and His Worship trusted that now the matter had been pointed out to the Commissioners the desired end would be attained.

The Mayor said that, with the amount of shunting going on at all hours of the day and night, it was "a wonder" that someone hadn't been seriously injured trying to cross the railway yard.⁸⁴ The *Terowie Enterprise* took it a step further:⁸⁵

Trains are despatched in a happy-go-lucky sort of fashion without any warning to passengers, except by "Take your seats, please," generally muttered so that it might be taken for anything else. And frequently passengers are left behind. What is wanted is a bell, and certainly some better system of getting across the rails other than that now existing.

A deputation consisting of members of the Council "and several leading townsmen" took the opportunity of waylaying the Commissioner of Crown Lands, Jenkin Coles, as he passed through Petersburg on 16 November 1888. The Commissioner said he "concurred in the necessity for such a structure" but pointed out that it was a matter for the Railway Commissioners.⁸⁶ Two years later, another deputation tackled Laurence O'Loughlin, Member for Frome, drawing attention to "the present dangerous state of the station, and some narrow escapes from serious accidents". O'Loughlin and Clement Giles, the other Member for Frome, took the matter to the Commissioner of Public Works and urged the Government "either to erect a station on the nearer side of the railway to the town, or to provide a subway underneath the lines for the convenience of traffic".⁸⁷

Nearly ten years later, the matter had still not been addressed. Members of the House of Assembly pointed out that there was still "considerable danger to life at the Petersburg railway station through the absence of means for crossing the railway line". The *Adelaide Observer* observed:⁸⁸

81 "Petersburg Locomotive Buildings", *Advertiser*, 27 October 1904, p8e

82 "Petersburg Railway Workshops", *Advertiser*, 16 November 1904, p4b

83 "An Overway Bridge for Petersburg", *Petersburg Times*, 8 June 1888, p4d

84 "The Commissioner of Crown Lands in Petersburg", *Petersburg Times*, 23 November 1888, p43

85 "The Petersburg Railway Station", *Terowie Enterprise*, 15 June 1888, p2c

86 "The Commissioner of Crown Lands at Petersburg", *Adelaide Observer*, 17 November 1888, p32e

87 "Improvements Wanted at Petersburg", *SA Register*, 26 June 1890, p6b

88 "Petersburg Railway Station", *Adelaide Observer*, 28 October 1899, p26e

It would appear that the railway authorities have not been unmindful of the necessity of making some provision in the public interest, for, when questioned on the subject on Saturday, the Railways Commissioner stated that before the matter was ventured in Parliament the Engineer-in-Chief had arranged for the preparation of plans and estimates for either an overway bridge or a subway at the most convenient spot, and Mr. Moncrieff is now engaged in getting the plans and estimates ready.

The local council were still of the opinion that it would be better to relocate the railway station to the northern side of the yard.⁸⁹ In January 1900, O'Loughlin and Giles introduced yet another deputation to the Railways Commissioner "in connection with the promised subway at the Petersburg railway station"⁹⁰ and the Town Clerk, Sam Keally, noted:⁹¹

For upwards of five years this matter has again and again been brought under the notice of the Government and the railway authorities, and with the usual result. For a considerable time the average number of trains running daily to and fro from Petersburg has been over 60. The population is over 3,000, and to reach the station from the business portion of the town one has to cross six, if not seven, railway lines. These lines are crowded at all times with goods trains, continually being shunted. Sometimes a zigzag opening is left, sometimes a straight one, and sometimes none at all. Plans and specifications for a subway have been already prepared, and it is understood that as soon as a member of Parliament is run over and killed some more plans and specifications will be prepared, and the work will still remain in abeyance. The Premier during his visit here a week ago expressed his surprise that the work was not already in progress — some people are easily surprised — as it had been authorised some time since.

Work finally started on a subway in July 1900⁹² and it was opened to the townspeople and passengers on Monday 12 November.⁹³ Almost immediately, another problem was realised and the Resident Engineer was asked to erect posts at the entrances "to prevent cattle, etc., straying through".⁹⁴ However, this became another long-running issue, as the *Petersburg Times* remarked in 1905:⁹⁵

THE UNPROTECTED CONDITION of the subway at the Petersburg Railway Station was some time ago brought by the Petersburg Corporation before the local authorities, and a request was made that posts should be placed at either entrance. No satisfaction was accorded the appeal, and this thoroughfare—more used than any other in the town, upon an area basis—is liable to be yet the scene of a sad and to-be-remembered accident. The passage—walled in at either side—is not intended for the traffic of vehicles nor stock (though there is ample room for a runaway to take a cart through, and cattle have been known to bolt through), and no inconvenience of any kind would be entailed by making the way impassable to quadrupeds. Is it not within the province of the Council to enforce regard of its rejected request?

The subway was also liable to flooding but at least this was attended to promptly when it occurred.⁹⁶ Notwithstanding, the subway performed its purpose and remains a feature of the town.

In 1899, the Corporation had urged the Government to consider relocating the passenger facilities to the northern side⁹⁷ but the subway addressed the problem of crossing the railway yard – at least for the time being. A few years later the local progress association was reformed, this time calling itself the Vigilance Committee, and they expressed concern about the railway station which, they said:⁹⁸

... was a positive disgrace. Better accommodation for the railway officials, for the stationmaster, and for the travelling public was badly needed. ...

89 *Adelaide Observer*, 4 November 1899, p42c

90 "Long Promised Works", *Petersburg Times*, 19 January 1900, p2e

91 "Grievances of Petersburg", *Advertiser*, 22 January 1900, p6h

92 *Petersburg Times*, 27 July 1900, p2h

93 *Petersburg Times*, 16 November 1900, p2g

94 *Petersburg Times*, 23 November 1900, p2h

95 *Petersburg Times*, 14 February 1905, p2e

96 *Observer*, 3 June 1905, p9e

97 *Adelaide Observer*, 4 November 1899, p42c

98 *Register*, 20 March 1902, p6f

The committee was urging that the break of gauge should be transferred from Terowie to Petersburg. There was some diversity of opinion, and personally [the Mayor] was inclined to the belief that it would be wiser to wait until the railways were handed over to the Federal Government, when probably, with a uniform gauge, Petersburg would, for some years at any rate, be the terminal station for the broad gauge.

5.7 New Lines and the Break-of-Gauge

Towards the end of the first decade of the 20th century, there were more than 1000 miles of NG railway lines north of Adelaide but no direct connection to the capital city without a break-of-gauge. (The unfortunate acronym BOG was, perhaps, an indication of the state of affairs.) On 23 April 1908, more than 200 residents of the Mallala district – said to be “on the warpath” – attended a banquet at which a strong case for a direct line to the city was put to several parliamentarians, including the Acting Premier.⁹⁹ A suggestion was put forward for a new NG line from Balaklava running more or less due south through Mallala (see Figure 13) and in December 1909 the Governor announced that a Royal Commission would be appointed to investigate and report upon:¹⁰⁰

1. The best means of overcoming the difficulties and damage in connection with the transfer of livestock and merchandise from narrow-gauge lines to broad-gauge lines in the State of South Australia.
2. As bearing on the break-of-gauge at Hamley Bridge, the proposal for the extension of the narrow-gauge line from Balaklava via Mallala southward

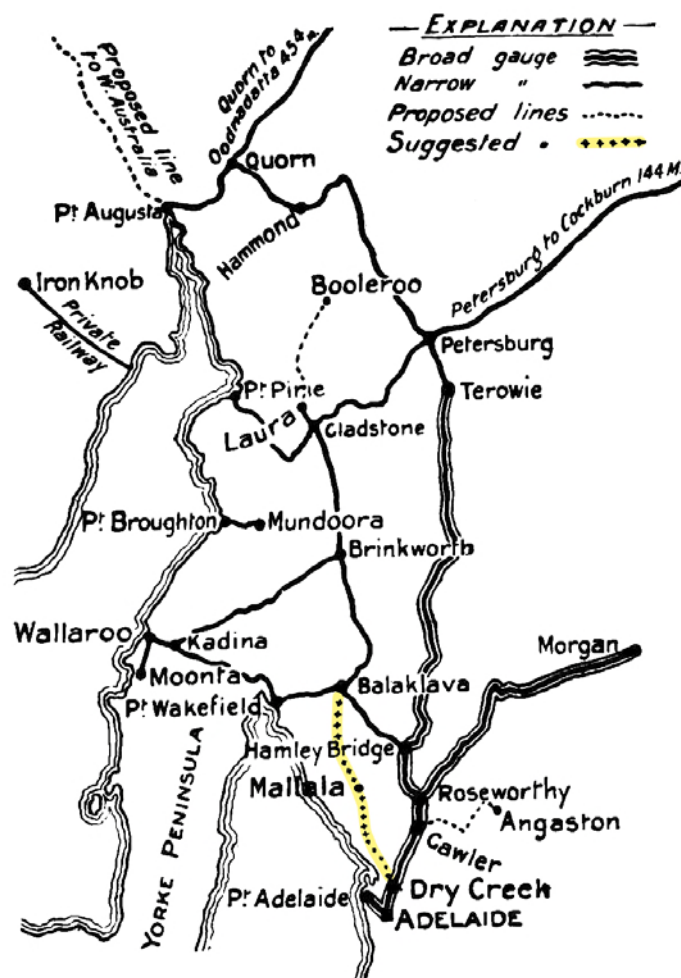


Figure 13: Proposed and suggested lines for the Northern railway system
[Register, 5 May 1908, p7]

⁹⁹ “Narrow Gauge Railway to Adelaide”, *Register*, 25 April 1908, p6g

¹⁰⁰ *Advertiser*, 2 December 1909, p4b

The Commissioners were appointed on 9 February 1910¹⁰¹ and the Narrow-gauge Extension and Break-of-gauge Commission held a preliminary meeting in April by which time the Railways Commissioner, Alex Moncrieff, had submitted a report.¹⁰² It took until December 1912 before the Commissioners finally presented their report to Parliament. They concluded:¹⁰³

We are in agreement with most of these witnesses as to the desirability of abolishing the break of gauge, but in view of the certainty of the uniform gauge for Australia being either 4 ft. 8½ in. or 5 ft. 3 in. we cannot entertain the idea of bringing the 3 ft. 6 in. lines nearer to the city. We believe in the policy enunciated by the Railways Commissioner that as opportunity offers the 3 ft. 6 in. lines should be converted to a wider gauge, and the break of gauge be kept as far from the city as possible.

In reference to the complaints made about losses and damage due to the transfer of goods and livestock from NG to BG, the Commission concluded “that damage can only be prevented by the utmost care being taken” and that “it is not advisable to extend the narrow-gauge lines from Balaklava via Mallala southward”. However, they went on to make several recommendations including:¹⁰⁴

2. That a railway should be constructed on the 5 ft. 3 in. gauge from Salisbury to Balaklava on a route to be determined by the Railway Standing Committee, with a view to its extension via Brinkworth, Crystal Brook, Warnertown, and Port Germein to Port Augusta.
3. That in all future railway construction work provision should be made as far as practicable for the lines being ultimately converted to the 4 ft. 8½ in. gauge, in view of the probability of that being adopted as the uniform gauge for Australia.

A Standing Commission was then formed to take evidence for what became known as the Salisbury to Port Augusta railway line. The only section where there was an obvious route for the line to take was between Redhill and Crystal Brook. For the southern section between Salisbury (which would be the junction with the Gawler line) and Redhill, there were various arguments including the original proposal for a line through Mallala and Balaklava versus routes to the east, nearer the existing northern line, or to the west, passing through Port Wakefield. For the northern section between Crystal Brook and Port Augusta, Moncrieff favoured a line to the west of the Flinders Rangers rather than east via Melrose.



Figure 14: Proposed route of the Salisbury to Port Augusta line (as far as Redhill), 1912

101 “Royal Commissions Appointed”, *Express and Telegraph*, 9 February 1910, p1d

102 “Break-of-Gauge Commission”, *Register*, 15 April 1910, p4e

103 “Break of Gauge: Recommendations of Commission”, *Register*, 14 December 1912, p3h

104 *Register*, 14 December 1912, p3h

The *Port Augusta Dispatch* remarked:¹⁰⁵

The route controversy is sure to be productive of infinite variety and in this discussion Augustans will be happily placed for they can regard it disinterestedly and with judicial calm, knowing that whatever happens the terminus is to be Port Augusta.

In December 1913, the Standing Commission presented its second progress report. They had examined 11 routes with 11 variations and construction costs had been supplied by the Chief Engineer of the Railways, Joseph Moncrieff, and his brother Alexander, the Commissioner of Railways. There was reluctance to adopt SG because of the trade with Victoria over BG lines so, until that state changed its standard, the line would be 5 foot 3 inches. However, later conversion to SG “would be kept in view by railway officers in the construction of the rolling stock”.¹⁰⁶ According to the *Port Augusta Dispatch*, Commissioner Moncrieff’s advice to the Standing Commission had implied that “escape from the hell of mixed gauges to the heaven of uniform gauge is through the purgatory of simplification”.¹⁰⁷

The only section where there was an obvious route for the line to take was between Redhill and Crystal Brook. For the southern section between Salisbury (which would be the junction with the Gawler line) and Redhill, there were various arguments including the original proposal for a line through Mallala and Balaklava versus routes to the east, nearer the existing northern line, or to the west, passing through Port Wakefield. For the northern section between Crystal Brook and Port Augusta, Moncrieff favoured a line to the west of the Flinders Ranges rather than east via Melrose. In choosing the final route, consideration was given to putting the line through districts not already served by a railway.

The line was built in affordable stages. The first, Salisbury to Long Plains (north of Mallala), was opened by the Governor, Sir Henry Galway, on 20 April 1917. The original intention was to build this first stage to Bowmans, about eight miles east of Port Wakefield, but – in the interests of economy – Long Plains was chosen as the terminal to reduce the line length by about 16 miles.¹⁰⁸



Figure 15: Opening of the Salisbury to Long Plains line, 20 April 1917 [State Library SA PRG280/1/39/478]

In November 1917, the North-Western Railway Development Act authorised the construction of the section from Long Plains to Redhill. The section from Long Plains to Bowmans was opened on 23 May 1923, and from Bowmans to Snowtown on 3 September 1923. The last stage, from Snowtown to Redhill, was opened on 5 September 1925.¹⁰⁹

¹⁰⁵“Adelaide-Port Augusta Railway”, *Port Augusta Dispatch*, *Newcastle and Flinders Chronicle*, 28 March 1913, p2d

¹⁰⁶“Port Augusta Railway: Suggested Broad-Gauge Route”, *Observer*, 6 December 1913, p41a

¹⁰⁷*Port Augusta Dispatch*, *Newcastle and Flinders Chronicle*, 28 March 1913, p2d

¹⁰⁸“The Long Plains Railway”, *Advertiser*, 21 April 1917, p11a

¹⁰⁹“Redhill Railway Opened”, *News* 5 September 1925, p4d

6. Peterborough: Divisional Headquarters (1918-1976)

In 1918, Petersburg's name was Anglicised to Peterborough;¹¹⁰ many German-sounding street names in the town were changed as well.¹¹¹

In the 1920s, the railways – already running at a loss – faced a new competitor: road transport. The problems created by the break of gauge (BOG) at Terowie became more significant and competing road transport companies were able to get goods to Adelaide markets more quickly and cheaply.

As railway historian Ron Stewein explained, the South Australian Railways had been the state's milch cow before World War One but then, after the War, their failure to modernise turned them from an asset to a significant liability:¹¹²

While businessmen under the goad of competition would keep their methods abreast of the times, the railways, having a monopoly, were able to blunder along with their crude methods until even a tolerant population cried out for a radical change. By 1921, as a result of the government's parsimony, the railways were deplorably behind the times. The milch cow had not only dried up, but was becoming hungrier every year.

Following an exhaustive commission of enquiry headed by Philip Anthony, general manager and chief engineer of the Federated Malay States railways,¹¹³ rebuilding the loss-making railways became a priority of the government of Henry Barwell. One of Anthony's recommendations was that the Government should look overseas for an experienced and reputable railwayman to be their Chief Executive Officer. Applications for the newly-created post of Chief Commissioner of Railways¹¹⁴ were solicited from railway organisations in the United Kingdom and America and resulted in the appointment of W A (Bill) Webb on 15 November 1922.¹¹⁵

Under Webb's reorganisation, Peterborough became the headquarters of the Northern District on which comprised all NG lines north of Terowie and acquired two significant railway landmarks – its round house and its coaling tower.

6.1 Railway Roundhouse

Prior to the reorganisation of the Webb era, the locomotive depot had a straight-through shed that was not only inefficient but unpleasant to work in (see page 17). A key component of Webb's remodelling program was the provision of modern locomotive depots with American-style "roundhouses" containing up-to-date facilities for repairs and cleaning. The first of these "stables for iron horses" was to be erected at Mile End, just west of the city of Adelaide. The *Daily Herald* explained its advantages:¹¹⁶

... this distinctly modern locomotive shed will provide separate stalls for 40 engines. Entrance to and egress from the round-house will lead to a turntable 85 feet in diameter in the centre of the "stable," whence they may be turned and switched into any of the 40 stalls, which run out radially from the centre. Each stall is 90 feet long, and during every 24 hours each should provide accommodation for three locomotives in running service. Free from interference or the necessity for shunting to reach other engines, running repairs, cleaning, etc., may be undertaken with great convenience and absolute safety and with an enormous saving in time and energy.

110 "Townships' New Names", *Daily Herald*, 19 January 1918, p4e

111 Woods, 1986, p52

112 Ron Stewein, 2011, *A History of the South Australian Railways. Volume 5, Controversy and Mr Webb*, Eveleigh Press, Matraville, p18b

113 "Railway Expert: Mr Anthony Arrives", *Express and Telegraph* (Adelaide), 28 May 1918, p1e; "The Railways: Mr. Anthony's Final Report", *Advertiser*, 8 January 1919, p9c-e

114 Stewein, 2011, p18; the significance of the position of "Chief Commissioner" was that the SAR already had a Commissioner (James McGuire) in office

115 Stewein, 2011, p20a

116 "Modern Engine Accommodation: 'Stables' For 40 Locomotives", *Daily Herald*, 21 February 1924, p2h



Figure 16: The roundhouse under construction – the straight-though sheds are in the background [Stewein, 2011, p130]

Despite what the *Herald* said, the official count of stalls at Mile End was 42; Peterborough would have 23, Tailm Bend 14, and Port Lincoln 7. The turntables consisted of two spans with a central pivot and supported at the other end by a sub-frame running on a ring rail. The turntable was driven by an electric motor rather than operated by hand.¹¹⁷ Remodelling at Peterborough was completed in 1926.¹¹⁸

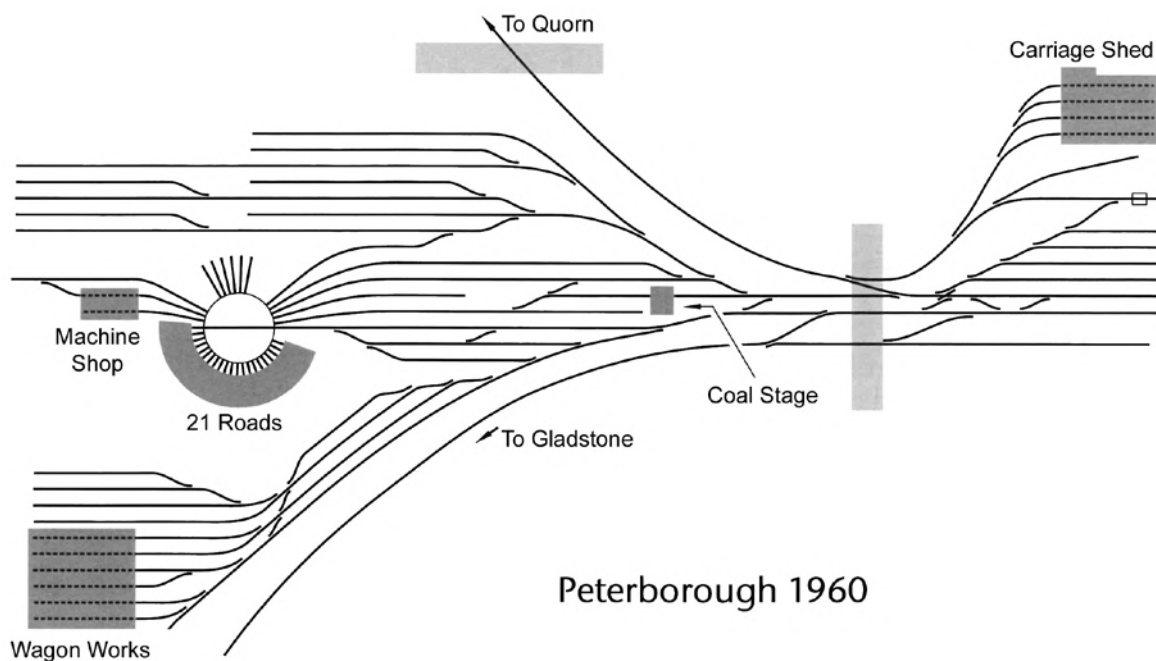


Figure 17: Western end of Peterborough railway yard, 1960
[From Bulletin of the Australian Railway Society, October 2006, p378: GSH-ARHS/nsw0607]

6.2 The Coal Gantry

The process of “coaling” – loading coal into the tender – was done by hand, a slow, tedious and laborious job. It was also very inefficient with the coal having to be handled a number of times: this quickly led to the adoption of mechanical methods such as a crane with a clamshell bucket which could pick up coal from a stockpile and load it into the tender.

¹¹⁷ Stewein, 2011, p123b

¹¹⁸ Elva Plummer, 1988, *Important Dates in the History of a Great Railway Town: Peterborough, Back-to-Peterborough and District Bicentennial Celebrations Committee*, Peterborough, p4

Elevated coaling stations were developed in the early 1900s to speed up the refuelling process and reduce locomotive turn-around times to minutes. Most of the work was done by gravity. Coal would be delivered to the site and dumped into an underground bunker. From here a mechanical hoist would lift the coal into an elevated coal bin. Coaling was then simply a matter of running the tender underneath a chute and releasing coal from the bin. Taking up very little space in the yard, the coaling stations were simple to operate and easy to maintain. The coal was also protected from the weather.

The hoists were usually electrically-powered with the motor placed in the elevator house or in the unloading bunker. If an electricity supply was not available, an oil engine would be used. The first superstructures were made of timber but by about 1906 a new engineering material had become available – reinforced concrete. These structures were stronger and more durable – so much so that many of them have outlasted the age of steam. The locomotive was positioned under the chute and the fireman hauled on a counter-weighted chain to open the gate; another chain stopped the flow. Sandboxes needed to be replenished as well and many coaling stations also had stores of sand which could be loaded in a similar fashion.¹¹⁹

By the 1920s, these coaling stations had become commonplace in America.¹²⁰ It was therefore no surprise then that Webb would introduce them to South Australia. The Premier, Sir Henry Barwell, announced “many new details with regard to the rehabilitation programme” in September 1923: these included the installation of new automatic coal handling equipment.¹²¹

Nine coal handling units were ordered from Roberts & Schaefer in Chicago by Alfred Day, the General Traffic Manager, during his tour of England and the United States in 1923-24. The equipment arrived at Port Adelaide in May 1924 aboard the SS *Eastener*.¹²²

The Harbours Board was also erecting coal gantries at the Osborne wharf to expedite handling of the incoming supplies (coals from Newcastle). As the *Chronicle* pointed out:¹²³

When the proposed coal gantries are in operation at Osborne, and these bunkering units are installed throughout the State, the coal will not be handled from the time it is dug out at Newcastle until the fireman throws it into the locomotive’s furnace.

The *Advertiser* described the operation:¹²⁴

Hopper trucks will deposit the coal into underground receivers, whence it will be conveyed by mechanical elevators in raised hoppers. When it is desired to coal an engine the fuel will be run down chutes into the engines tender. At the present time the usual practice, even in the Adelaide yard, is for the coal to be shovelled out of the trucks on to a bunkering stage and then reshovelled into baskets when a tender needs replenishing.

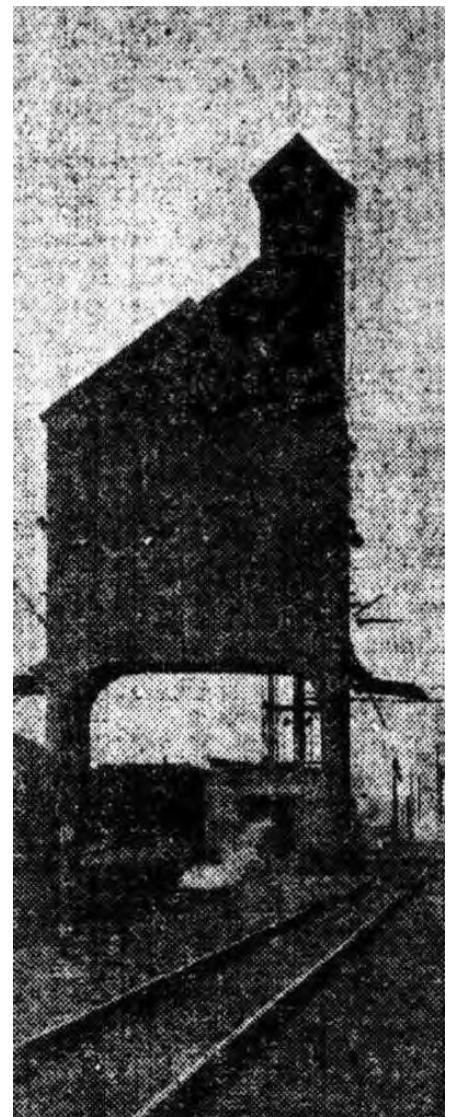


Figure 18: “A coal handling plant in America similar to those to be erected for the South Australian Railways Department” [Photo: *Chronicle*, 31 January 1925, p54c; caption: *Register*, 24 January 1925, p9c]

119 Thomas W Dixon, 2002, *Steam Locomotive Coaling Stations and Diesel Locomotive Fueling Facilities*, TLC Publishing, Lynchburg, pp6b-7a

120 Martin J McGuirk, 2002, *The Model Railroader’s Guide to Locomotive Servicing Terminals*, Kalmbach Books, Waukesha, p12bc

121 “Modernising Our Railways”, *Observer*, 8 September 1923, p26a

122 Stewein, 2011, p123b

123 *Chronicle*, 24 May 1924, p46a

124 *Advertiser*, 22 May 1924, p9c

Only the mechanical components – “said to be the most up-to-date of its class obtainable” – had been imported: the bunkers, the foundations, and the auxiliary equipment, such as the motor or engine to power the hoist, would all be sourced locally.¹²⁵ However, no tender advertisement or report has been found to identify who these local suppliers might have been. It is likely that the SA Railways Department designed the structure and constructed it themselves – their experience with reinforced concrete dated back to 1905 when the Department designed the Watsons Gap bridge on the South Coast line near Port Elliot.¹²⁶

Ron Stewein described the plant and its operation:¹²⁷

A typical coaling and sanding plant consisted of an overhead bunker built in steel reinforced concrete of capacity varying from 150 to 300 tons and three tracks, the middle one for the incoming coal hopper trucks and the outside two for the engines to be coaled. ...

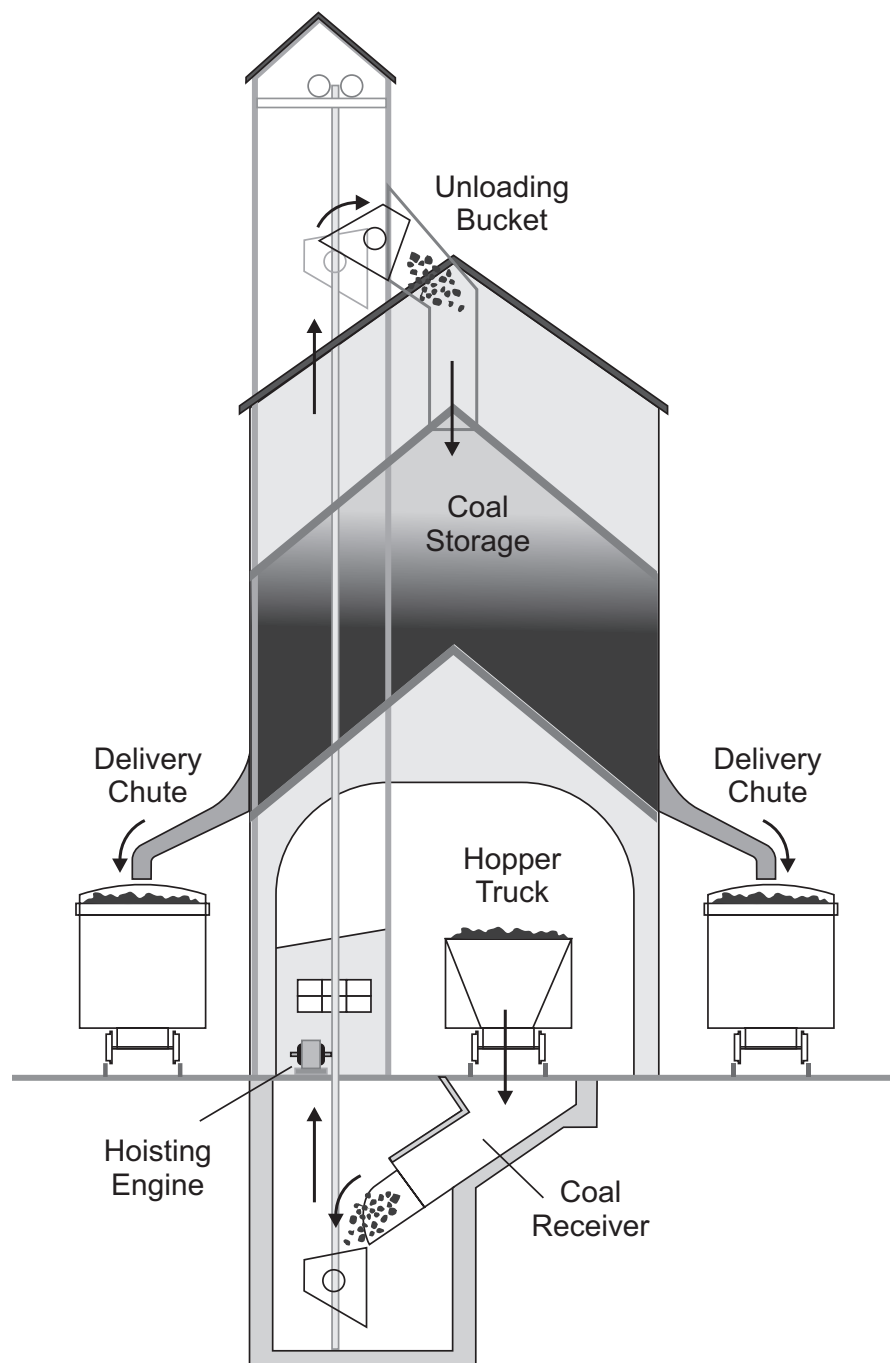


Figure 19: “Conceptual diagram of the coaling tower at Peterborough

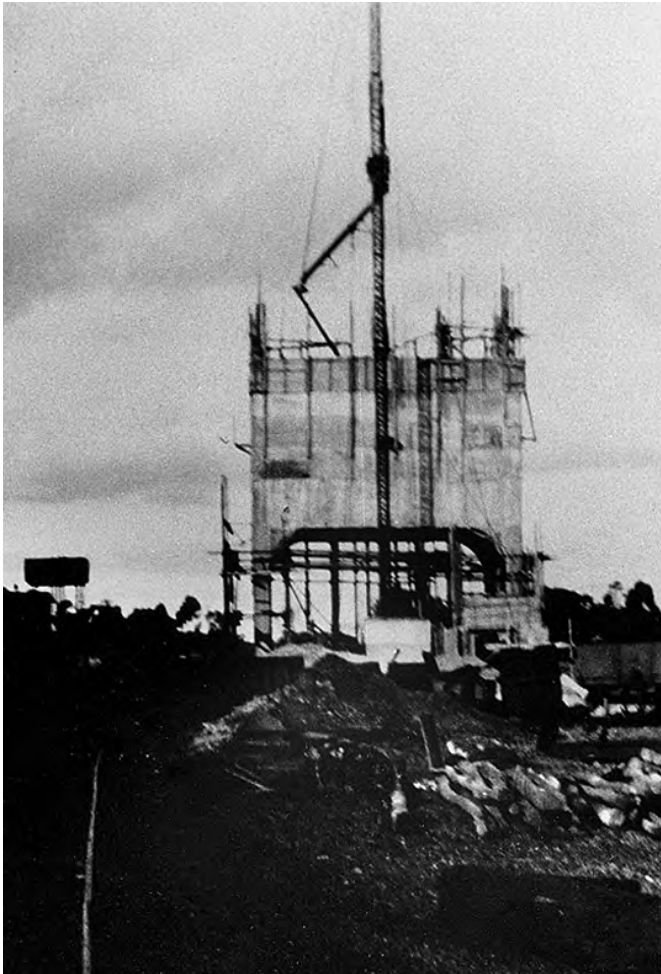
125 “Modernising the Railways: Bunkering Plant from America”, *Advertiser*, 22 May 1924, p9c

126 Richard Venus, 2014, “The Foundations of Concrete: Early Concrete Construction in South Australia”, *Transactions of the 3rd South Australian Engineering Heritage Conference*, Engineers Australia, Adelaide, p34

127 Stewein, 2011, p123b

In January 1925 , the *Register* reported:¹²⁸

Preparatory work and erection were already in progress at Mile-End, Port Adelaide, Peterborough, Port Pine, and other points. Those plants, when completed, would not only save a considerable expenditure in the cost of handling coal, but would reduce the coaling time of locomotives.



*Figure 20: The coal gantry under construction
[Lionel Noble Collection]*



*Figure 21: Garrett 406 being "coaled" at Peterborough
[Steamtown photo]*

The coal loading plant – referred to locally as the “gantry” – had a capacity of 300 tons and, at 85 feet tall, immediately became a landmark in the district. Soon after its completion, electric lighting was erected on the eastern and western sides to illuminate the station yard:¹²⁹

Since the erection of the coal handling gear by the Railway Department at Peterborough, the tall structure used for loading the coal has proved a landmark to anyone approaching Peterborough by day, and this week huge lights have been erected on the east and west sides of the cabin surmounting the gantry.

These lights, which are each of 2,000 candlepower, throw a beam of light 440 yards wide for a distance of a mile, as they are placed 85 ft. above ground level, people approaching Peterborough during the hours of darkness will see what appears to be a light house.

The lights are designed to illuminate the Loco yard and we understand that in all probability more of these lights will be installed and eventually the present system of lighting the yards will be discontinued.

The Railway slogan “Safety First” is being upheld by the installation of this modern lighting system and with the provision of additional lights, all danger of accident at night time should be avoided.

128 Jones, 1985, p82a

129 “A Beacon: Improved Lighting”, *Times and Northern Advertiser*, 21 May 1926, p2g

More lights were installed the following year – and the gantry had grown two feet – as the *News* reported in June 1927.¹³⁰

The Railways Department has been experimenting with large electric lights on the coal gantry, at a height of 87 ft., which lights up all the western end of the railway yards and renders unnecessary the small lights in the yards. They also do away with glare and shadows, and have proved of great safety to the men.

The east end will be similarly lighted. A 90-ft. tower has been erected at the Mill street crossing. It is expected to be ready for a trial tomorrow.

The *Advertiser* carried more detail:¹³¹

PETERBOROUGH.

June 20.—The local railways have been experimenting with large electric lights on the coal gantry at a height of 87 feet, which light up all the western end of the railway yards, and render the small lights throughout the yards unnecessary. They also do away with the glare and shadows. The east end is to be similarly lighted, and yesterday a 90-ft. tower was erected at the Mill-street crossing, quite a large gathering of spectators being present all day (despite the boisterous and damp weather) watching the interesting work. All traffic was suspended from 8 a.m., and as the up East-West express was three hours late, ample time was allowed the men to haul up the giant tower and make it fast before letting go the stay ropes to allow the express to pass. One man had his hand jammed and badly injured on the job, but apart from this not a hitch occurred.



*Figure 22: Demolition of the coal gantry, 1970
[Lionel Noble Collection]*

¹³⁰ "Station Lighting", *Times and Northern Advertiser*, 21 May 1926, p2g

¹³¹ *Advertiser*, 22 June 1927, p15g

6.3 Railway Standardisation

The first SG line in SA was the Trans-Australian Railway running between Port Augusta and Kalgoorlie in WA. Built by the Commonwealth Railways, it opened in 1917. In 1935, the Commonwealth and South Australian Governments reached an agreement which would complete the “Salisbury to Port Augusta” railway line first proposed in 1913 (see page 21): the Commonwealth would extend the SG line from Port Augusta to Port Pirie and South Australian would push the BG line north from Red Hill. This would make Port Pirie a (mercifully) rare triple-gauge station with the new SG and BG lines meeting the NG line from Broken Hill via Peterborough.

The SG line from Port Pirie to Port Augusta was completed in 1937, and was extended to Marree in 1955.

In 1970, the NG Port Pirie to Cockburn line and the 56 kilometre privately-run link through to Broken Hill were replaced by SG, for the first time linking the East and West coasts of Australia – Sydney and Perth – with a single uninterrupted standard gauge line.

The reconstruction of the Peterborough yards involved the design:¹³²

... of mixed gauge trackwork of a complexity rarely, if ever, attempted elsewhere and the Chief Engineer’s branch has been busy on these designs for a considerable period. Peterborough will become one of two three-gauge yards on the division, and will share with Gladstone this doubtful honour in place of Port Pirie, which will revert to a two-gauge yard after conversion.

With Peterborough replacing Terowie as the break-of-gauge station, a Bogie Exchange Depot was established at Peterborough. One of its first jobs was to convert some SG ballast hoppers brought from Gladstone to BG in order to ballast the new BG tracks adjacent the passenger platform. The Depot became fully operational in January 1970.¹³³ The Peterborough workshops also handled the conversion of the division’s 330 NG vehicles (including 100 ore wagons) to SG, the 660 SG bogies required being made in SAR’s Islington workshops. Six 830 class diesel electric locomotives also had to be converted and 600 new vehicles of various types constructed as well.¹³⁴

In December 1969, SA Railways Commissioner Ron Fitch announced in *Rail News*:¹³⁵

On Saturday, 10th January 1970, the last narrow gauge train will operate over the Port Pirie-Broken Hill line, and on the afternoon of Monday, 12th January, standard gauge trains will leave Port Pirie and Broken Hill and will cross at Peterborough that evening.

On 12th January too, broad gauge working will be extended from Terowie to Peterborough thus eliminating the long standing disabilities associated with the 14 miles narrow gauge link between those two places.

The actual changeover to standard gauge will be the result of a great deal of planning by the transportation and the two engineering branches.

It will also be the culmination of many years’ work, work undertaken for the most part by Departmental forces. The result has been a credit to them.

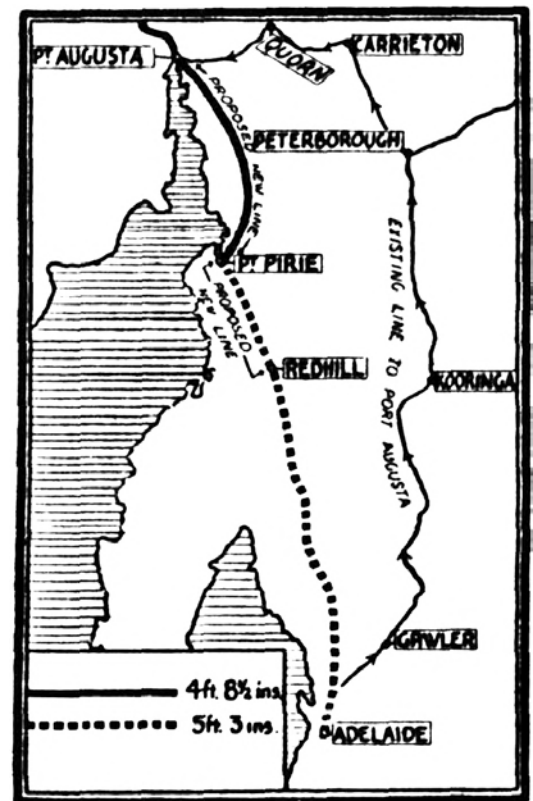


Figure 23: Connecting the gauges –
Port Augusta to Red Hill line
[Chronicle, 28 November 1935, p45a]

¹³² “Reconstruction of Peterborough Yard ...”, *Rail News*, No 11, December 1967, South Australian Railways, Adelaide, p5

¹³³ “Peterborough a break-of-gauge station”, *Rail News*, No 19, December 1969, South Australian Railways, Adelaide, p3

¹³⁴ *Rail News*, No 19, pp2-3

¹³⁵ “Mr Fitch says ...”, *Rail News*, No 19, p1

Ceremonies to commemorate the completion were planned for Port Pirie and Peterborough on 12 January 1970: State Premier Steele Hall would dispatch the first eastbound SG train from Port Pirie “by the customary method of blowing a whistle and displaying a green flag”. The official party would then travel to Peterborough where the eastbound train would meet the first westbound train from Broken Hill and a BG railcar from Terowie. The respective engines would be “driven” by Hall, SA Transport Minister Murray Hill, and Ron Fitch, SA Railways Commissioner, after their wives had cut ribbons stretched across the tracks. However, because of a union ban imposed at the last minute, the ceremonies were cancelled. Writing in his autobiography, *Australian Railwayman*, some 36 years later, Fitch said:¹³⁶

I am now satisfied ... that the whole dispute was stage-managed for no other reason than to provide the union with yet another means to strike a blow against the Hall Government ...

The ceremonies were intended “to give some recognition to the men who had worked on this segment of the national project” and the cancellation, he thought, was a great pity because it disappointed a number of people, “in particular, the Peterborough railwaymen who, with their families, made up one of the finest communities that one could ever hope to meet”.¹³⁷ Fitch took the Peterborough plaque with him when he retired and later donated it to the National Railway Museum at Port Adelaide where it is on display; the Port Pirie plaque is in storage at the National Trust’s museum in the old Port Pirie railway station.

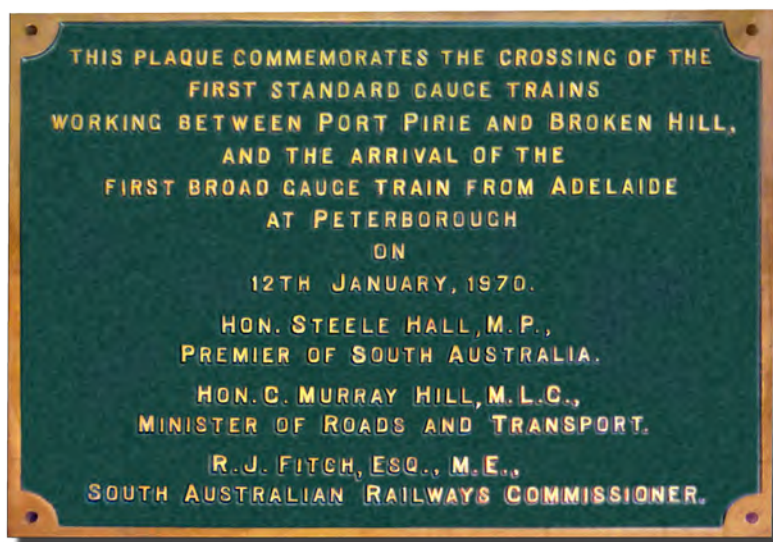


Figure 24: The un-unveiled plaque commemorating the completion of the standard gauge line across the continent and intended for Peterborough [National Rail Museum]

The SA ban meant that the first SG freight train, which left Sydney on 12 January, had to be diverted through Albury, with gauge transfers at Melbourne and Port Pirie. The ban was lifted on 16 January and the passenger service inauguration ceremonies proceeded without incident: two divisions of a special train left Platform 1 at Sydney’s Central Station on 23 February 1970 and passed through South Australia on 24 February, arriving in Perth on 26 February. The regular Indian-Pacific passenger service began operating from Perth on Sunday 1 March and from Sydney on Monday 2 March 1970.¹³⁸

In the 1972 election, the Whitlam Government made a commitment to invite the states to hand over their railway systems to federal control. The Government of South Australia took up the offer but elected to retain the Adelaide metropolitan services which were transferred to the State Transport Authority. Financial responsibility for the remaining services passed to the Federal Government on 1 July 1975, although the SAR continued to operate services until operations were formally transferred on 1 March 1978 to Australian National.

¹³⁶ Ron Fitch, 2006, *Australian Railwayman: from cadet engineer to Railways Commissioner*, Rosenberg Publishing, Dural (NSW), p201b

¹³⁷ Fitch, 2006, pp199-201

¹³⁸ Fitch, 2006, p203

7. Steamtown Heritage Rail Centre (1977-)



*Figure 25: T-class locomotive 199 restored for show in the Diesel Shed
[Richard Venus 4244]*

7.1 Railway Preservation Society, 1977-2005

To celebrate the town's centenary, steam trains on all three gauges converged on Peterborough on 9 October 1976 – this planted the seed of capitalising on Peterborough's rich railway heritage. Locomotives had also been restored at Peterborough for the Pichi Richi Railway Preservation Society which had opened in 1974 and demonstrated that it was possible to operate a steam-hauled tourist railway.

Steamtown came into being following a public meeting in Peterborough on 19 August 1977 when the Steamtown Peterborough Railway Preservation Society was formed. The intention was to operate a tourist railway, similar to Pichi Richi, between Peterborough and Eurelia on the old narrow gauge line to Quorn.

A T-class (T199) locomotive was languishing in a local park and the Corporation of Peterborough agreed to “transfer custody” of the locomotive to Steamtown.¹³⁹ This would be the nucleus of a rolling stock collection which now comprises more than 90 items.¹⁴⁰ Additional steam locomotives were needed to operate a working railway and the only ones which might be available at that time were in Western Australia. Keith Smith, chairman of the Australian National Railways Commission offered free rail transport between Kalgoorlie and Peterborough and the SA Government approved a grant of \$20 200 to purchase the locomotives. Although the WA Government Railways offered a 50% discount on freight, the Society still had to raise \$5000 to pay for their transport from the Midland railway workshops in Perth to the standard gauge rail head in Kalgoorlie. A loan was arranged and two locomotives arrived in Peterborough on 17 January 1979 followed by a third on 20 February. Australian National Railways

¹³⁹ Steve McNicol, 2015a, *Steamtown: 1977-2005*, Railmac Publications No 3, Elizabeth, p4

¹⁴⁰ McNicol, 2015a, p19



Figure 26: Former WA locomotive PMR720, now fully restored, about to make the return journey from Orroroo to Peterborough, 12 July 1981 [Steve McNicol 81-2140]

(ANR) made space available in the roundhouse for the locomotives; however, they would not allow volunteers to work there until suitable arrangements – including insurance cover – were put in place. Work finally began on the restoration of the locomotives and their conversion to narrow gauge early in 1980.

The Society approached the Government for further assistance to establish a depot and the Tourism Minister agreed to contribute \$60 000 provided that the Corporation of Peterborough took over the lease of the land where the depot would be established; the Corporation guaranteed a \$20 000 loan to the Society; and that the Corporation was represented on the Society's executive committee. With those conditions met, a large shed (220 feet long, 57 feet wide, and 20 feet high) was ordered and erected by early July 1980. The Society now undertook a feverish work schedule to commence operations on the Easter long weekend in 1981.¹⁴¹

One of the WA locos (PMR720) undertook a successful trial run on 1 March 1981 and the railway was ready for its first paying passengers on Friday 17 April; the official opening and ceremonies took place the following day and PMR720 was renamed "Keith Smith" in recognition of the ANR chairman's support.¹⁴²

Running a profitable operation, however, was challenging and, in the mid-1980s, there was "considerable upheaval" with an attempt made to relocate the Steamtown rolling stock to another site, such as Victor Harbor, where there would be a better chance of attracting more customers. Train services stopped in June 1984 and it took a Government Select Committee to resolve the issues. As a result, Steamtown's assets were placed under the control of the Corporation by Act No 8; this ensured the Steamtown assets would remain in the town. Under the management of a new committee, passenger services resumed in Easter 1987.¹⁴³

In 1989, AN announced their intention to streamline their operations at Peterborough and dispose of all unwanted infrastructure and equipment. Steamtown had expressed an interest in leasing the roundhouse, machine shop, and ablutions block and AN suggested they consolidate their operations within the area around the roundhouse.¹⁴⁴

¹⁴¹ McNicol, 2015a, p13

¹⁴² McNicol, 2015a, pp11-13

¹⁴³ McNicol, 2015a, p13

¹⁴⁴ McNicol, 2015a, p14

7.2 Steamtown Heritage Rail Centre (2005-)

Track maintenance issues, a decline in the number of volunteers, and escalating insurance premiums put severe strain on the operation of the tourist railway and it was shut down in June 2002. The Steamtown Peterborough Railway Preservation Society was dissolved on 13 January 2005 and the day-to-day operations of Steamtown were managed by a Section 41 committee.¹⁴⁵

Prior to this, in late 2001, the District Council of Peterborough (which replaced the Corporation in 1987) had appointed a project officer (Ian Milne) to oversee the implementation of a business plan to secure Steamtown's future. Several reports were commissioned from 2002 to 2004 including an evaluation of the rolling stock and equipment assets, an appraisal of the buildings in the workshop precinct, an inspection of the track, and a display plan.¹⁴⁶

While the operation of a steam heritage railway was not considered viable, the vision the consultants presented was for a world-class visitor centre based on the railway workshops precinct – a heritage reaching back nearly 125 years. In 2005, a small group of volunteers organised some special events to mark the 125th anniversary of the opening of the line from Jamestown to Petersburg and, although there were no trains running, Peterborough's support for its railway heritage was strong.

Ironically, it was the declining infrastructure that was to provide a boost to Steamtown's future. Recognising that the NG line to Eurelia would never operate again, a demolition contract was let in 2008 and the money received from the reclamation of the track and sleepers went towards developing the Steamtown Heritage Rail Centre. The site was spruced up, interpretive signage was installed, and a new visitor centre was built. The Sound & Light show – a one hour video presented against the backdrop of the roundhouse – was also commissioned in 2008.



Figure 27: Lifting in the prefabricated visitor centre and the final result after landscaping [Steamtown]



Figure 28: SA Premier Mike Rann opened Steamtown on 29 November 2009 [Steve McNicol 09/11/8086]

The Steamtown Heritage Rail Centre was officially opened on 29 November 2009 by the State Premier Mike Rann and a bronze plaque commemorating the event has been placed adjacent the entrance to the Visitor Centre.

The Steamtown Heritage Rail Centre continues to be a significant tourist attraction for the town. In January 2015 Peterborough Tourism joined with 13 small communities along the old Broken Hill to Port Pirie NG line to create the Heritage Rail Trail which won a South Australian Tourism Award that year. Steamtown was also awarded a Certificate of Excellence by TripAdvisor for consistently delivering superior customer service in 2015 and 2016.

¹⁴⁵ Under Section 41 of the Local Government Act 1999, a council may establish a committee to manage or administer property, facilities, or activities on behalf of council ["SA Current Acts", *Australasian Legal Information Institute* website, <www.austlii.edu.au/au/legis/sa/consol_act/lga1999182/s41.html>, viewed 23 July 2017]

¹⁴⁶ Steve McNicol, 2015b, *Steamtown: Heritage Rail Centre*, Railmac Publications No 9, Elizabeth, p3

7.3 The Sound and Light Show

Steamtown is one of two venues in Australia to offer the experience of a *son et lumière* show – an immersive experience which is presented in a setting of historic significance (usually outdoors) and draws upon music, sound, lighting, and projection effects to present the story (or history) of the site. The first such show was produced in 1952 by Paul Robert-Houdin, the curator of the Château de Chambord in France’s Loire Valley. In 1964, during the third Adelaide Festival of Arts, a *son et lumière* show was staged outdoors in the courtyard of the State Library. Sponsored by the Electricity Trust of South Australia (who provided technical advice about the lighting), the show told the story of “Jack and the Beanstalk” with the giant “climbing” the tower of the Library’s Mortlock wing.¹⁴⁷ Fans of James Bond might remember Richard Kiel (as “Jaws”) stalking Roger Moore around the *son et lumière* show at the pyramids of Giza in the 1977 production of the *Spy Who Loved Me*; that show was installed in 1961.¹⁴⁸

Australia’s first *son et lumière* show was “Blood Under the Southern Cross” which opened in 1992 at Sovereign Hill in Ballarat.



Figure 29: Blood on the Southern Cross website, 2017

It’s hard to say who first recognised the potential for a site-based *son et lumière* show in Peterborough’s unique roundhouse setting.¹⁴⁹ For the town of Peterborough, the proposition was compelling: because the show had to be at night, visitors would need to stay in the town and this would deliver a significant economic benefit for local businesses. However, it meant that the show had to be good enough that people felt it was worth staying over for.

The company chosen to turn this dream into reality was Adelaide’s Light Image, a production company with more than 30 years experience in setting up interpretive centres: these range from the Umoona Museum at Coober Pedy to the Brambuk Cultural Centre at Halls Gap and include displays at the Adelaide and Melbourne museums. Light Image are film makers and so the displays are built around film.

According to Rick Cavaggion, director of Light Image Productions, film making is all about telling a story in an entertaining and interesting way. The Steamtown story was designed for the broadest possible audience, not just train buffs. It was Light Image principal Martin Gordon’s job to do the research and come up with the story and he found that Peterborough was a rich resource. The final script mixed “the drama of real history with the romance of rail”.¹⁵⁰ The story also surprised Peterborough residents, many of whom told the producers that they had lived there all their lives and hadn’t realised the significance of the events that had taken place along their railway lines.¹⁵¹

Then Light Image had to “realise” the story and historical material has its own particular challenge: when it came to finding sites for filming, as Rick Cavaggion put it, “what was there then isn’t there now”.¹⁵² Fortunately, the National Rail Museum at Port Adelaide had a number of suitable locomotives and carriages as well as authentic costumes and props and so a lot of filming was done there.

¹⁴⁷ The author witnessed this production on his way home from late-night lectures at the University of Adelaide

¹⁴⁸ “Son et lumière (show)”, *Wikipedia*, <en.wikipedia.org/wiki/Son_et_lumière_(show)>, viewed 29 July 2017

¹⁴⁹ Much – if not most – of the following account comes from a conversation the author had with Rick Cavaggion on 28 July 2017, coupled with the author’s own experience as a producer of audio-visual material dating back to 1974

¹⁵⁰ “Steamtown”, *Light Image* website, <lightimage.com.au/films.html> viewed 29 July 2017

¹⁵¹ Cavaggion interview, 2017

¹⁵² Cavaggion interview, 2017



Figure 30: The passenger carriage on the turntable provides seating for the Sound & Light show; just visible on the right is the projector enclosure with its air conditioning unit [Richard Venus 1805]

Figure 31: Visual effects at Steamtown [Steamtown photo]



Figure 32: The screen structure stands unobtrusively in front of the roundhouse [Richard Venus 4182]



Figure 33: The Steamtown Sound & Image show in operation [Light Image Productions]

Recreating the crash of a T-class locomotive in 1901 was a particular challenge. Steamtown's T199 was not operational and the budget didn't allow for expensive CGI effects. Rick Cavaggion also says he is "old school" and prefers to do as much as he can in the camera: it's more difficult but, if you have the knowledge and experience that he does, it's also more affordable. Fortunately, the Bellarine Railway in Victoria had a former SAR locomotive that was operational (T251) and, filled with volunteers in appropriate costumes, it became the "stunt double" for the crash sequence.¹⁵³

The production is all digital: filmed with digital cameras and recorded in digital format on solid state media players. Steamtown's show runs pretty well every night – and sometimes even twice a night – and so the hardware had to be robust and reliable enough for repeated showings. It was also important not to give the game away to daytime visitors and so the hardware is all in plain sight but unobtrusive.¹⁵⁴

¹⁵³ Cavaggion interview, 2017

¹⁵⁴ The author can attest to this. After speaking with Rick, he went back through his photos of Steamtown and had to search carefully to find the equipment

The technology involved is pretty much standard for the display and entertainment industry. At the heart of it is an Alcorn McBride “show controller” – the programmable logic controller (PLC) that integrates the lights, the sounds, the smoke (or steam) effects, and the film into a coherent visitor experience. The manufacturer’s website sums it up neatly:¹⁵⁵

The timeline feature ensures that audio, video, lighting, effects, and other common entertainment systems are precisely synchronized with each other to ensure an amazing guest experience.

The Steamtown experience is built around a film so its presentation had to be the centrepiece. Basically this means a projector and screen – which doesn’t sound all that demanding. But the projector had to project a high quality, high definition image that was 8 metres wide. The housing for the 6000 lumen Panasonic projector had to be secure, weatherproof, and temperature-controlled. The screen needed to be eight metres wide and robust enough to withstand the elements. A simple roller door was chosen and the company which supplied it, Airport Doors at Parafield, were experienced in installing wide doors for aircraft hangers. The supporting structure couldn’t fall over or wobble about and so, said, Rick Cavaggion, “the foundations went down to China”.¹⁵⁶

Visitors view the show from the comfort of a former Commonwealth Railways sleeping car. The 65-foot SG car was built by the Meadowbank Manufacturing Company (NSW) and has a clerestory roof and a wooden body on a steel underframe. It entered service on 20 October 1917 as ARP8 and in December 1947 it was converted to a sitting car with eight compartments. After it was written off in May 1978, it was purchased by Steamtown and converted to NG by fitting Minden Deutz bogies. With a new coat of chocolate and cream paint, it was used in the inaugural Steamtown train on 18 April 1981.¹⁵⁷

Production began in 2008 and the film was premiered during the opening of Steamtown in November 2009. Following the installation and commissioning of the lighting and other effects, the Sound & Light Show began regular public performances in May 2010.¹⁵⁸

It remains a unique feature of the Steamtown Heritage Rail Centre and continues to attract visitors from all over Australia who come to Peterborough specifically to enjoy the Steamtown experience.

Steamtown Heritage Rail Centre

Daily tours

Find yourself ...

... in the heart of South Australia's rail history at Peterborough's Steamtown Heritage Rail Centre, situated at the gateway to the Southern Flinders Ranges.

Guided tours run continuously, starting from 9am to 3.30 pm daily.*

Delve into the past as you discover the State's unique triple gauge history; the exquisite 1st Class Transcontinental Lounge Car; wonderful carriages from the Old Ghan line; the modified Morris 25 Motor Inspection Car (MIC), now beautifully restored; the iconic powerhouses of steam rail in SA, the W and T class locomotives; and the world's only remaining triple gauge turntable, all housed in the 23 bay Roundhouse complex.

Listen to the stories of the people, the icons, the workmen, and the characters in this engaging 90 minute tour.

*except Christmas Day. Low Season Conditions Apply.

Night time!

Every night* Steamtown presents South Australia's first and only **Sound & Light Show**.

The Steamtown Heritage Rail Centre (SHRC) is more than a museum, it's a legacy of Australia's rapid industrial rise in the early 20th century. At its heart is the steam train, a thing that is at once beautiful, powerful and strangely melancholy, symbolising as it does the passing of an era.

Steamtown is at its most potent after dark when the Sound and Light show is played in the industrial shadows of the heritage-listed 'Roundhouse' - a huge shedding area that circles an 85-foot turntable. Visitors sit in a period carriage on the turntable surrounded by silent locomotives and diesel engines to watch as Peterborough's greatest chapter is played out on a cinema screen.

But this is a story of astonishing growth and sudden decline; when the lights finally lift to illuminate the handsome faces of the mighty engines, it's not uncommon to see people wiping their eyes.

Bookings essential!

1 Telford Ave, Peterborough SA 5422

Ph: 08 8651 3355
Fax: 08 8651 2173

email: manager@steamtown.com.au
www.steamtown.com.au

Sound & Light Show

Figure 34: Steamtown promotional flyer, 2017

155 “Products Designed for Themed Entertainment”, *Alcorn McBride* website <alcorn.com/products/v16-pro/>, viewed 29 July 2017

156 Cavaggion interview, 2017

157 Steve McNicol, 2015c, *Steamtown: Locomotives & Rolling Stock*, Railmac Publications No 13, Elizabeth, p16

158 “See the sound and lights in Peterborough”, *Flinders News*, 3 November 2010, p10

8. Associations

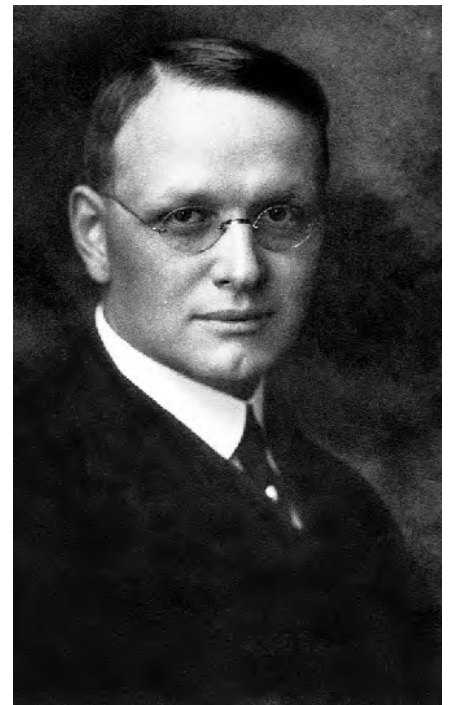
8.1 The Railway Commissioners

Peterborough was a training ground for many SA Railways officers including James McGuire and Charles Anderson who later became Railways Commissioners in SA; John Short who became a Railways Commissioner in WA; and Frederick Stephen who became Chief Engineer of the SA Railways.

The SA Railways Commissioner who left his physical mark on Peterborough in the form of the American-style roundhouse and coaling gantry was William Webb.

8.1.1 William Webb, SA Railways Commissioner, 1922-1930

William Alfred Webb was born in Ohio on 16 May 1878 and went to work as a messenger boy for the Colorado Midland Railway at the age of twelve. From this most basic beginning, he became a clerk and then a “very competent” telegraphist with Midland. Realising that telegraphy gave him limited opportunities for advancement, Webb took night classes in shorthand and became a stenographer. He eventually became stenographer to the President and General Manager of the railway. From 1900 to 1911, he gained significant experience in railway operations as an assistant to various senior managers until being appointed General Manager of the Texas Central Railroad in 1911. In 1914 he became General Manager (Operating) of the Missouri, Kansas and Texas Railroad and, in 1918, General Manager and Chief Operating Engineer. During World War One, the United States Government assumed control of a system of railroads in the American southwest and put Webb in charge. Recognised as “an outstanding and versatile railway executive”, in 1919, he was appointed to a Railroad Board of Adjustment which had an arbitration role in employer/employee agreements. In 1920, he returned to railway administration and was President of the Cambria and Indiana railroad when he accepted an offer from the South Australian Premier on 15 August 1922.¹⁵⁹



*William A Webb, 1914
[State Library SA B 4219]*

When Webb was appointed, South Australia already had a Railways Commissioner in James McGuire and so Webb was appointed Chief Commissioner. Curiously, this appointment was only formalised on 15 November 1922, the day before Webb stepped off the Overland train in Adelaide.¹⁶⁰

Webb faced a significant challenge:¹⁶¹

Inheriting an outdated and uneconomic system, characterized by fragmented authority, ponderous decision-making and a complex, pyramidal administrative structure, he revolutionized railway management by rationalizing the basis of operations.

Webb wasted no time in inspecting the system which took him about three months and he returned with a reasonably favourable opinion, especially of the permanent way which he thought was generally in good condition. The locomotives and rolling stock were another question altogether: he said they were 30 to 40 years out of date. He also noted that heavier rails had been laid over bridges unable to carry the loads the rails were capable of. Webb wanted larger locomotives – make that “huge” locomotives – capable of

¹⁵⁹ Reece Jennings, 1973, *W A Webb: South Australian Railways Commissioner 1922-30 | A Political, Economic and Social Biography*, Nesfield Press, Adelaide, pp91-96

¹⁶⁰ Jennings, 1973, p101

¹⁶¹ Reece Jennings, 1990, “Webb, William Alfred (1878–1936)”, *Australian Dictionary of Biography*, Australian National University, Canberra <adb.anu.edu.au/biography/webb-william-alfred-9026/text15895> viewed 6 August 2017

pulling larger loads over a system relaid with heavier rails, converting NG to BG where necessary, and supported by new bridges. Add in an overhaul of the Islington workshops, better facilities for employees, and new communication and signalling system and the bill came to about £4 500 000.¹⁶²

Railway historian Ron Stewein noted that South Australia “was frankly amazed, but prepared to believe Mr Webb knew his job and awaited results”.¹⁶³

Webb settled on three classes of big locomotives: the Mountain-type for hauling passengers and freight over the Adelaide Hills; the Pacific-type for fast passenger transport; and the Mikado-type for freight. The first of these to appear was the Mikado-type No 700 on 27 April 1926 “followed by the first Mountain-type about a month later”.¹⁶⁴ To carry out the necessary civil engineering works, Webb promoted Robert Hall Chapman, already working as Assistant Engineer at Murray Bridge, to Chief Civil Engineer. Chapman became responsible for relaying lines with heavier rail, building new and stronger bridges, converting 230 miles of NG to BG, and constructing new rural lines.¹⁶⁵

Webb also decentralised administrative control, creating a divisional structure which gave the local managers “almost complete autonomy over the lines within their jurisdiction, while he concentrated on high managerial policy”.¹⁶⁶ On the other hand, Webb centralised the control of rail traffic, an innovation soon copied by the other states. This was another of Webb’s American “technology transfers”. By using telephone links to all stations and sidings, a central controller could see what all trains in the control territory were doing and therefore direct their movements in the most efficient manner.¹⁶⁷

Webb also found that his administrative staff were scattered over five different buildings in Adelaide. He therefore had a new central station designed with plenty of room for railways staff, railway passengers, and railway freight. Amazingly, it was built without Parliamentary approval or the allocation of funds.¹⁶⁸

Needless to say, Webb attracted more than his fair share of critics and opponents in the Parliament, the unions, and the press. In October 1929, he put his name to a publication called *Railway Facts* which attempted to set the record straight but it failed to achieve its purpose. His contract expired in November 1929 and he had no wish to stay; however, he accepted an extension of six months and left South Australia (by train) on 14 May 1930.¹⁶⁹ His opponents wasted no time in trying to undo all that he had achieved. As Reece Jennings put it:¹⁷⁰

Following his departure the re-elected Hill government sought to tackle the financial problems of the Depression. Webb’s administrative reforms were dismantled and the old hierarchy was reinstated to preside over forty years of technological stagnation and traditionalism. For all that, his rehabilitation of the S.A.R. did enable it to undertake an enormous transport task in World War II and laid the footing for the reforms of Australian National Railways when it later took over the country lines of the S.A.R.

8.2 The Railway Contractors

The contract for the Petersburg-Cockburn-Broken Hill line was awarded to C and E Millar and the work was supervised by Abraham Baxter.

8.2.1 Charles and Edwin Millar

Charles Gibson Miller (1839-1900) and Edwin Franks Millar (1845-1928), builders of the railway from Petersburg to Cockburn and then to Broken Hill, developed their Melbourne-based business into one of the major railway contracting enterprises in Australia.

¹⁶² Stewein, 2011, pp19-22

¹⁶³ Stewein, 2011, p22a

¹⁶⁴ Jennings, 1973, pp107, 110

¹⁶⁵ Denis Cumming and Gwen Moxham, 1986, *They Built South Australia: Engineers, Technicians, Manufacturers, Contractors and Their Work*, Cumming & Moxham, Adelaide, p36

¹⁶⁶ Jennings, 1990

¹⁶⁷ Jennings, 1973, p130

¹⁶⁸ Jennings, 1973, p135

¹⁶⁹ Jennings, 1973, pp158-159

¹⁷⁰ Jennings, 1990

The brothers were born in Northern Ireland, sons of John Millar, an engineer, and came to Victoria with their family in the 1850s. They did well on the goldfields and went back to Dublin where the brothers completed engineering courses.¹⁷¹ The family returned to Victoria where John held various engineering posts before accepting a position as Town Engineer in Dunedin, New Zealand, in 1862.¹⁷² In 1875, Charles, in partnership with Charles James, undertook the construction of the Sale section of the Gippsland railway.¹⁷³ Following its completion, the partnership was dissolved in February 1878 and Charles then established C & E Millar contractors with Edwin.

Their first foray into South Australia was unsuccessful: in 1877 they tendered for the Gladstone and Jamestown railway and a timber bridge on the Burra and Hallett railway.¹⁷⁴ However, a few months later, they secured the contract for the Mount Gambier and Rivoli Bay railway, the Commissioner of Public Works noting that they had been the contractors for the third section of the Gippsland Railway and had constructed the 40 miles of permanent way between Oakleigh and Sale.¹⁷⁵ In May 1878, the *Argus* reported that the brothers had purchased a steam-driven machine for the Rivoli Bay line which could bore holes in 130 fence posts an hour, if operated with “tolerable care”.¹⁷⁶

When they secured the contract for the Albany-Beverley line in Western Australia (which opened on 1 July 1889), the brothers began cutting their own timber. This led them to establishing timber mills at Yarloop and Mornington. After amalgamating with other companies, they formed Millars’ Karri and Jarrah Company in 1902. This later became the “enormous concern” of Millars’ Timber and Trading Co Ltd.¹⁷⁷

The brothers did well and became quite wealthy. Charles was an enthusiastic yachtsman and a member of the Royal Yacht Squadron; he also rubbed shoulders with King Edward VII and the Kaiser of Germany.¹⁷⁸ He was sailing his own yacht from England back to Australia when he died at Las Palmas in the Canary Islands in February 1900. The *West Australian* described him as:¹⁷⁹

... a genial friend, and hospitable to a degree, and, whilst energetic in business, anxious to be on good terms with all with whom he did business.

Edwin had an interest in art, amassing a collection of 86 mainly European works,¹⁸⁰ and motor cars. In March 1908, he became the first person to drive a car (a 30 hp Léon Bollée) to the summit of Mount Kosciuszko.¹⁸¹ When he died in 1928, aged 83, the Perth *Sunday Times* said:¹⁸²

The name of Millar looms large in West Australian development, and has been prominent for a great many years. Commencing as bridge builders in Victoria, and extending to railway construction contractors, the Millar brothers carried out work in Victoria, New South Wales, South Australia, and Western Australia ... The Millar brothers were men of ability and business acumen, and success crowned the enterprises they took in hand, and were always well respected and esteemed in business and financial circles.

8.2.2 Abraham Baxter

Abraham Baxter (1844-1923) was born into the business of building railways: his father, Abraham, was a railway contractor in Birmingham. According to his obituary in the Perth *Sunday Times*, it was from his father that Abraham junior “inherited the genius and the courage to tackle and accomplish big things”.¹⁸³

171 “Charles and Edwin Millar”, *Adelaide River Railway Bridge: Submission for an Historic Engineering Marker*, Engineers Australia Northern Division, May 2003, pp14-15, citing John Ringland Anderson, “Family History of Charles and Edwin Millar”, *Koorabup* No 15, Denmark WA

172 *Leader* (Melbourne), 29 November 1862, p9d

173 *Age*, 12 January 1875, p2g

174 “Tenders: Engineer-in-Chief’s Department”, *SA Advertiser*, 4 May 1877, p7cd: the successful tenderer for the bridge was Charles Baillie and another offer had been made by John Wishart, both of whom carried out significant engineering works in South and Western Australia

175 “Mount Gambier and Rivoli Bay Railway”, *SA Register*, 30 October 1877, p4f

176 *Argus*, 4 May 1878, p7c

177 *Sunday Times* (Perth), 3 June 1928, p11d

178 Engineers Australia Northern Division, 2003, p15

179 “Death of Mr. C. G. Millar”, *West Australian*, 21 February 1900, p4i

180 “Picture Collection for Sale”, *Age*, 5 December 1928, p18i

181 “Record Motor Trip”, *Punch* (Melbourne), 19 March 1908, p30d

182 “A Pioneer Timber Man”, *Sunday Times* (Perth), 3 June 1928, p11d

183 “The Railway King”, *Sunday Times* (Perth), 12 August 1923, p5d

Baxter was one of a group of engineers and workers brought out to Tasmania in 1872 by Clark Punchard Curry & Reeve, the contractors for the Hobart-Launceston railway.¹⁸⁴ The Perth *Sunday Times* said:¹⁸⁵

The part he played in the building of that line stamped him as a man of great capability, and he was chosen as manager by the pioneer contracting firm of C. and E. Millar. He retained that position for nearly 20 years, and was the right-hand man of the firm in the construction of thousands of miles of railways in Victoria, New South Wales, Queensland and Tasmania.

In listing the railways Baxter had been responsible for, the *Times* omitted the railways he had managed for the Millars in South Australia, the first of these being the Mount Gambier and Rivoli Bay railway.¹⁸⁶ The Petersburg-Cockburn line and its extension to Broken Hill was another significant omission. The Adelaide *Observer* described him as the Millars' "energetic manager".¹⁸⁷

In 1888, Baxter supervised the Palmerston (Darwin) to Pine Creek railway for the Millars¹⁸⁸ and then launched out as a railway contractor himself, winning the job of constructing the Avoca to Ararat railway by outbidding fourteen other builders.¹⁸⁹ Baxter started at the Avoca end. When severe weather halted work, the *Avoca Mail* said, "somebody must have persuaded him that it never rained at Avoca, so he concluded he would be able to put the winter in here comfortably".¹⁹⁰ The line was opened in a surprisingly informal manner on 18 November 1890.¹⁹¹

In December 1890, Baxter and V J (James) Saddler were awarded a contract to build a 10-mile tramway for the Tarrawingie Flux Company at Broken Hill.¹⁹² The line was constructed with surprising rapidity and the first load of flux was delivered in May 1891.¹⁹³ In October they undertook the contract for the Molong-Parkes line in New South Wales¹⁹⁴ and soon established a reputation across Australia.

Building a railway invariably requires skill in earthmoving and Baxter & Saddler applied this expertise to executing the open cut at the Broken Hill Proprietary Mine in a strike-breaking operation. "3,000,000 cubic yards of stuff was shifted," Baxter told the Adelaide *Register*. In his 30 year career, he said, "he has constructed more railway than any other man in Australia ... about 2,000 miles."¹⁹⁵

In later years, he worked with his son, George, and their last big job together was the contract to build the Sleep's Hill tunnel in 1916. This deviation of the main line through the Adelaide Hills by-passed two single track tunnels and two "spidery" viaducts.¹⁹⁶ South Australia's largest railway tunnel was completed in March 1919.¹⁹⁷

Abraham Baxter was described as "a big man in every sense of the word ... known far and wide as The Railway King". Somehow he found time to own race horses and promote boxing matches. He also had interests in brickworks and lime kilns. "Hale and hearty to the last", he died at his Toorak home on 3 July 1923, aged 79.¹⁹⁸

Nothing was too big for him to tackle. The bigger the undertaking the better he liked it. He was never happier than when building railways in two or three States at the same time.

184 *Cornwall Chronicle* (Launceston), 14 June 1872, p3f

185 *Sunday Times*, 12 August 1923, p5d

186 *Sunday Times*, 12 August 1923, p5e; "Rovoli [sic] Bay-Mount Gambier" is included in the list of railways

187 *Adelaide Observer*, 20 August 1887, p33de

188 *South Australian Register*, 28 February 1888, p5d

189 *Avoca Mail*, 18 December 1888, p2b

190 *Avoca Mail*, 5 July 1889, p2b

191 "Avoca to Ararat Railway", *Avoca Mail*, 21 November 1890, p2e

192 "Big Undertakings", *Australian Town and Country Journal* (Sydney), 31 January 1891, p17c

193 *Pictorial Australian* (Adelaide), 1 June 1891, page 82c

194 "Public Works", *Sydney Morning Herald*, 19 October 1891, p3h

195 *Register* (Adelaide), 11 March 1922, p7f

196 "Through the Heart of Sleep's Hill", *Observer* (Adelaide), 1 February 1919, p12d

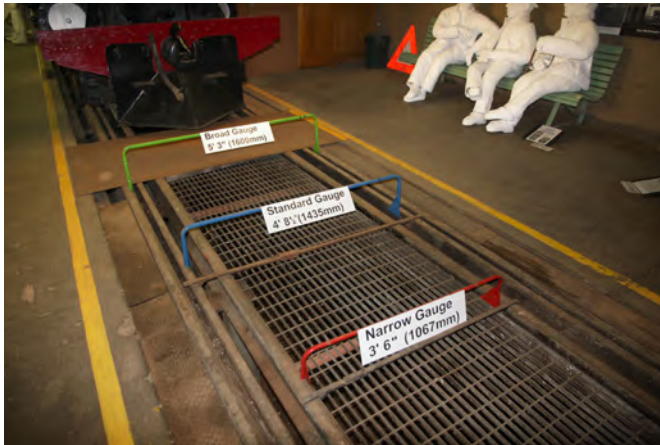
197 "The Hills Tunnel Completed", *Advertiser*, 31 March 1919, p6f

198 "Veteran Railway Contractor", *Observer* (Adelaide), 7 July 1923, p34e; the report said he was "about 80 years of age" but the Victorian Registry of Births Deaths and Marriages #8419 gives his age as 79

9: Interpretation Plan

9.1 Interpretation

The entire Steamtown precinct is an interpretation centre and there is no need for additional material. There are a number of interpretation panels placed throughout the site along with displays of artefacts and equipment. Volunteers conduct regular guided tours and a range of publications, including the Railmac *Steamtown Mini Profile Series*, is available from the Visitor Centre.



Displays of artefacts and equipment are found throughout the Steamtown site [Richard Venus 1942]



Guided tours are conducted regularly and can be joined at any time [Richard Venus 1948]

9.2 Marker Placement and Presentation Ceremony

The trigger for the nomination was a donation made to Steamtown in 2014 by the Retired Engineers Group of Engineers Australia's SA Division. These funds have been put towards establishing an entrance garden on the main road (Telford Avenue) frontage. The Engineering Heritage National Marker will be placed on a stainless steel frame at the entrance to the Visitor Centre, alongside the bronze plaque commemorating Steamtown's official opening in 2009. The presentation ceremony is planned for 19 October 2017 on a day of celebrations which will include the opening of the entrance garden and of the town carriage museum.



Visitor entrance to Steamtown: bronze plaque commemorating the opening on 29 November 2009 (1) and proposed location of the Engineering Heritage National Marker (2)

Appendix 1: Presentation Ceremony

The town's railway heritage is extremely important to Peterborough and a day-long celebration was planned, starting at Steamtown with the opening of the Entrance Garden followed by the presentation and unveiling of the Engineering Heritage National Marker. After a light lunch for invited guests, attention would turn to the main street and the official opening of the Town Carriage Museum. By a happy coincidence, the date finally chosen – Thursday 19 October – fell neatly between the 19th National Engineering Heritage Conference in Mildura and celebrations to mark the centenary of the completion of the Trans-Australian Railway at Port Augusta.



Her Worship the Mayor & Councillors
of the
District Council of Peterborough
Cordially Invite
Guest and Guest

To a day of Celebration and Opening of:
The Steamtown Entrance Garden
(supported by Engineers Australia, SA Division – Retired Engineers Group),
The Engineering Heritage National Marker Award, and
The Town Carriage Museum

On:
Thursday 19th October 2017

From:
11am to 3pm

At:
Steamtown and the Town Carriage, (opp. Home Hardware), Peterborough

The Day includes:
10am - 2pm: Outside broadcast at Steamtown with radio stations 5CS and Magic FM
11am: Opening of The Steamtown Entrance Garden
11.30am: Engineering Heritage National Marker Award Presentation at Steamtown
12pm to 1pm: Light lunch in the Steamtown boardroom
Open day tours of the Diesel Shed, including a **Free** sausage sizzle (12pm to 2pm)
2.30pm: Opening of The Town Carriage Museum, with drinks and nibbles

Responses would be appreciated by MONDAY 9th OCTOBER 2017
for catering purposes

Please call in/contact Sally at the Council Office
Ph : 08 8651 3566, or Email : council@peterborough.sa.gov.au

Official invitation to the “Day of Celebration”

A1.1 Presentation of Marker

About 60-70 people attended the consecutive ceremonies at Steamtown. Guests included Rodney Harrex, CEO of the South Australian Tourism Commission; members of the former SA Division Retired Engineers Group whose donation had helped establish the Entrance Garden; members of the Engineering Heritage groups in South Australia, Victoria, and Canberra; and several prominent railway historians who had assisted with the preparation of the Steamtown nomination document.



(Left) Peterborough Mayor Ruth Whittle thanks David Linn, chair of the former SA Division Retired Engineers Group for their support of the Entrance Garden (Right) Guests assemble for the Engineering Heritage National Marker presentation ceremony [photos: Richard Venus]

Presentation Address by Richard Muncey, Chair of Engineering Heritage SA:

Your Worship the Mayor, Ruth Whittle; other distinguished guests; Steamtown members; ladies and gentlemen –

Railways literally run through Peterborough. Having just watched the video on Steamtown, the Heritage Rail Trail and your great new Town Carriage Museum featured on Channel 7's *SA Weekender* travel show last month, I can see how important the railways were and still are to Peterborough as "the epicentre of rail in South Australia".

Engineering Heritage Australia (EHA) is Engineers Australia's peak heritage body. It develops policy and represents Engineers Australia nationally on engineering and industrial heritage matters. Indeed, the importance of the Steamtown nomination to EA and EHA can be gauged (excuse the pun) by the fact that you have here today, in addition to myself:

Keith Baker – a member of the Canberra Engineering Heritage group and a previous Chair of the Engineering Heritage Australia National Board

Richard Venus – a previous Deputy Chair of the Engineering Heritage Australia National Committee

David Le Lievre, an expat South Australian who is currently chair of Engineering Heritage Victoria and who, with me, is a member of the Engineering Heritage National Committee

The maintenance of our history, and how we arrived at today's "place" cannot simply be recorded in writing. We need to see, touch and feel our heritage, if we are to truly appreciate its meaning, and how it has contributed to our culture, and to our character as a nation.

Engineering Heritage Australia, including the National Committee and our heritage groups in all the Divisions, have risen to this challenge. Engineers Australia is committed to preserving our engineering heritage. The Engineering Heritage Recognition Program is designed to specifically meet this challenge. EHA Markers sometimes have an interpretation panel to provide more information but in Steamtown's case this is not necessary – Steamtown is itself here as a Heritage Rail Centre to do just this.

So why Steamtown Peterborough? Peterborough was the crossing point of Australia's east-west and north-south railways and a former regional headquarters of South Australia's rail network. In the 1970s, Peterborough and Gladstone were the only stations in Australia (and possibly the world) where all three gauges were operational in the same yard.

Peterborough itself was a railway town and the railways were a major source of employment; now, in the 21st century, its railway heritage has formed the basis of a significant tourist



(Left) Mayor Ruth Whittle and Richard Muncey, chair of Engineering Heritage SA, unveil the National Marker (Right) Mayor Whittle with Pat Kent, Manager, Peterborough Tourism & Steamtown Heritage Rail Centre; Richard Venus, principal researcher and author of the nomination document; and John Evans, Peterborough railway historian and Steamtown Patron [photos: Richard Venus]

attraction in the form of the Steamtown railway heritage and interpretation centre which makes an important contribution to the local economy.

In closing, I want to acknowledge the considerable contributions made by several people in developing the Steamtown nomination:

Richard Venus, who filled a number of gaps in the history of rail in Peterborough in researching and writing the Marker nomination

Local historian John Evans

Author and publisher Steve McNicol who has written many railway books including about Steamtown Peterborough

Malcolm Thompson and Bob Sampson from the National Railway Museum in Port Adelaide

The unveiling of the National Marker is, however, not the end of the research process – there is still much more to discover and learn about Peterborough and the state's railway history and heritage. But now I will ask Her Worship the Mayor of Peterborough, Ruth Whittle OAM, to accept the award of this Engineering Heritage National Marker on behalf of the Steamtown Railway Heritage Centre and the Peterborough community.

Response by Ruth Whittle OAM, Mayor, District Council of Peterborough:

Mr Richard Muncey, Chairman of the South Australian Engineering Heritage Group; members of the group and partners; our Patron John Evans; distinguished guests, ladies and gentlemen –

All of our lives are marked by recognition and sometimes awards. In the world of Tourism and Marketing, nothing is as rewarding and satisfying as an award. It announces our presence, our pedigree and our success and we all glow in the light of such recognition and dine out on the result for months and years into the future. It looks good on all our letterheads, our advertising and when submitting requests for some attention from a department or two. In essence it is a reward for something that has been well done!

Steamtown is fortunate to be associated with a group like the South Australian Engineering Heritage group and I thank you all for your effort in recommending us for this award. I would



*(Left) Peterborough Mayor Ruth Whittle officially opens the new Town Carriage Museum (right)
[photos: Richard Venus]*



*The Town Carriage Museum features a display of historical artefacts (left) and two “virtual reality” compartments (right) which create the illusion of a trip to Broken Hill
[photos: Peterborough Tourism]*

like to especially thank Richard Venus who has been the ‘engine room’ for the submission on our behalf and our Patron John Evans for his knowledge and willingness to share that knowledge for the submission.

Heritage is important to Peterborough and District – we are basing our tourism industry on the fact and seeking to enhance anything that reminds people of our past and our heritage in the hope that they will stop and pay attention to what we as a community have to offer.

This award will add to our offering. I am delighted to accept the award on behalf of the community and thank everyone who has been instrumental in the gaining of the award.

In the afternoon, guests attended the official opening of the Town Carriage Museum established in the refurbished Commonwealth Railways passenger car which used to house Peterborough’s Visitor Information Centre, now transferred to the Steamtown Heritage Rail Centre. In the main compartment, 18 artefacts, chosen to represent a chronology of the town’s history through to the present day, are displayed in custom-made cabinets. In the sleeping compartments, photographs from the Lionel Noble collection are displayed while, outside the windows, high definition video screens give a surprisingly realistic impression of the NG rail trip from Port Pirie to Broken Hill.

That evening, many of the visitors “stayed an extra day” and enjoyed the Sound & Light Show performance or toasted the continued success of Steamtown and Peterborough at the appropriately named Railway Hotel.

A1.2 Significance to Peterborough

The enthusiasm with which this nomination has been welcomed and supported by the Peterborough community has been outstanding. In its heyday, Peterborough had a population of 8000; following “dieselisation” in the 1950s and “standardisation” in the 1970s, it fell to 1600. No longer a railway town, tourism has become an essential component of the Peterborough’s economic future and they have worked hard to achieve results.

The “Stay an Extra Day” campaign began in 2014 and the “Heritage Rail Trail” between Broken Hill and Port Pirie was created in 2015; it won the South Australian Tourism Awards that year and finished in the top five in the national awards. These achievements were crowned by receiving the official **Yellow i** visitor information accreditation from the South Australian Tourism Commission.



As a result, over the past three to four years, the following outcomes have been achieved:¹⁹⁹

- Steamtown Heritage Rail Centre (SHRC) sales are up by 39%
- Peterborough Overnight Visitor numbers are up by 36%
- Total visitor numbers through SHRC are up 44%

In an email dated 22 October, Pat Kent, Manager of Peterborough Tourism and the Steamtown Heritage Rail Centre, said:

To now be able to continue this tremendous wave of tourism momentum with the new creation of the Steamtown Entrance Garden and the presentation of the National Award by your organisation, we are absolutely delighted and very appreciative. These two important initiatives involving yourselves and your group will help us to continue to improve and evolve and will no doubt add to the future economic viability of our town. We are certainly doing our very best, I can assure you.

In November 2017, Peterborough Tourism (District Council of Peterborough) won the Local Government category of the South Australian Tourism Awards and received a “silver” in the Destination Marketing category.²⁰⁰

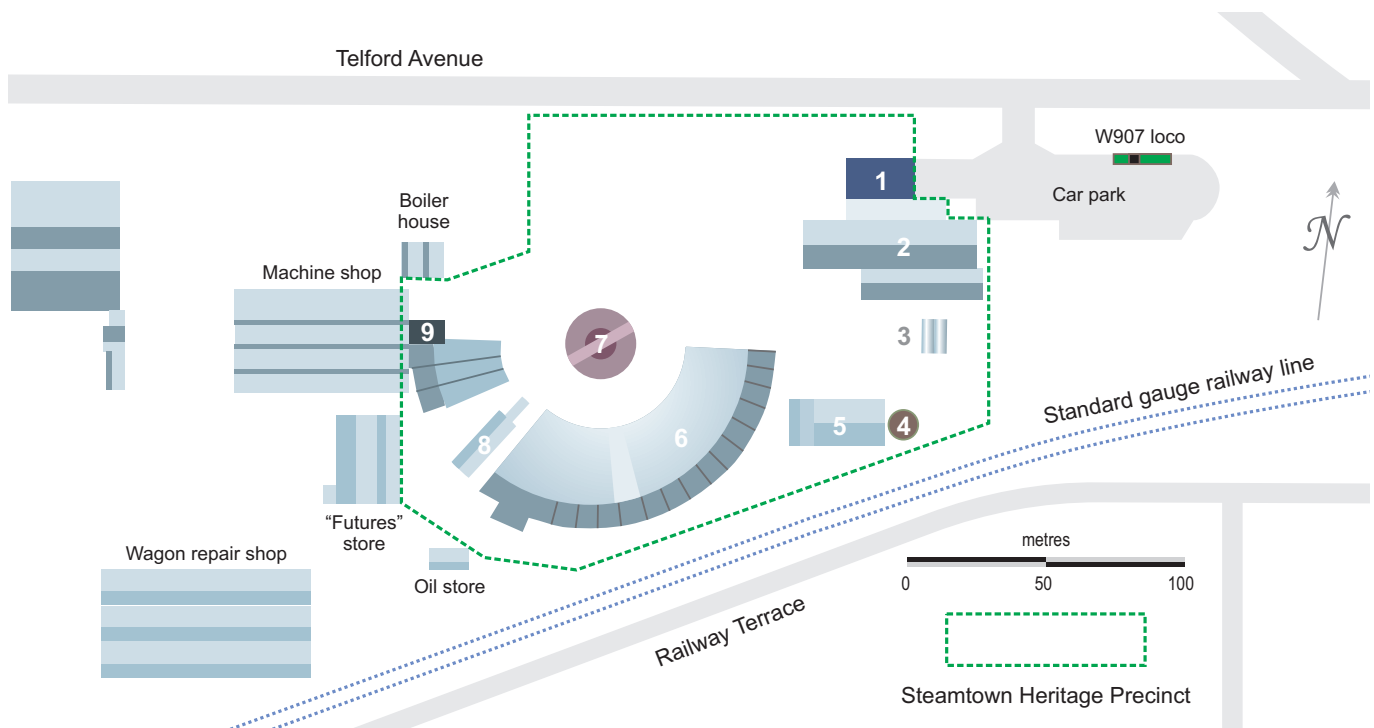


*The Engineering Heritage National Marker is proudly displayed at the entrance to the Steamtown Heritage Rail Centre and Peterborough Visitor Information Centre
[photo: Richard Venus]*

¹⁹⁹ “Peterborough Tourism”, email from Pat Kent, 22 October 2017

²⁰⁰ “The Very Best of South Australian Tourism”, *Advertiser*, 11 November 2017, p28

Appendix 2: Steamtown Structures



1. Reception area and shop

2. Diesel depot

Built in 1969 during the conversion of the Broken Hill to Port Pirie line to standard gauge to provide full maintenance facilities for diesel electric locomotives including a drop pit for wheel and bogie removal; now houses displays including the visually restored but no longer operational T199

3. Overhead oil tanks

Originally used for the heavy furnace oil used to fuel steam locomotives that had been fully or partially converted from coal burning from 1949; used for diesel fuel from 1970

4. Water tower

Low level concrete water tank for on-site supply

5. Loco Foreman's office

The older and smaller of the two buildings was the original foreman's office and housed the Rail Heritage Museum collection when it opened in 2002; the large building was built in the late 1960s and included a crib room and crew lockers

6. Roundhouse

The jewel in the Peterborough crown was completed in 1927 under Commissioner Webb's modernisation program and originally contained 23 under-cover roads; later some bays were converted for diesel maintenance while others were demolished to make room for the oil store (8) and broad gauge access tracks

7. Turntable

The 85-foot turntable was installed in 1926 and is electrically operated; standard and broad gauge rails were added in 1970

8. Oil store

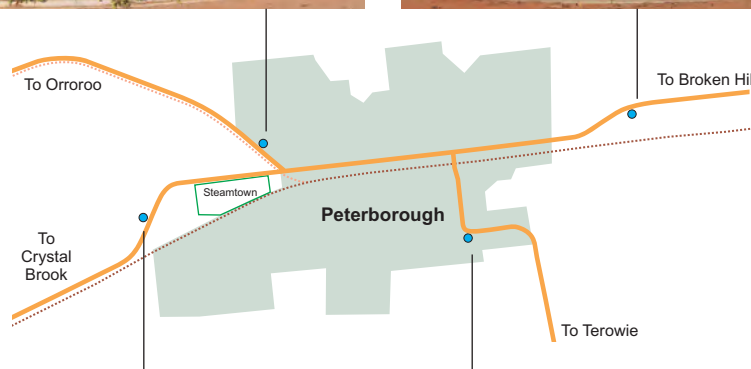
One of the newer buildings in the precinct, this was built about 1970 to store oil and lubricants and is now used as a workshop

9. Weighbridge and scales room

The weighbridge was made by Henry Pooley & Son in England and has six independent scales which enabled the weight on each axle to be accurately measured

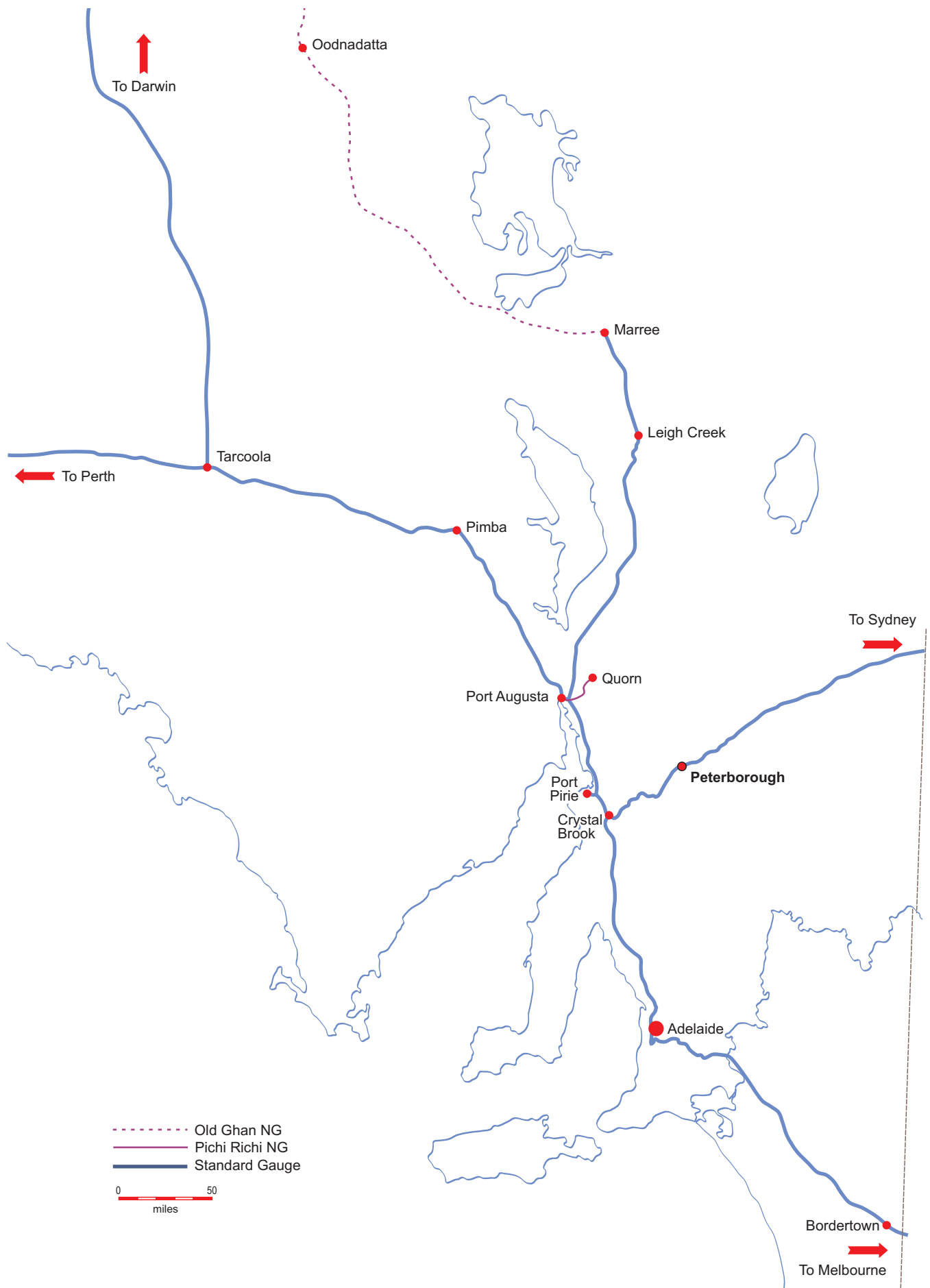
Appendix 3: Key Dates

1876	Petersburg township established
14 December 1880	Line connecting Port Pirie to Petersburg officially opened
14 June 1887	Line to Cockburn (SA/NSW border) opened
1918	Town renamed Peterborough
5 April 1923	Peterborough became headquarters of Northern Division
1953	400 class Beyer-Garratt locomotives introduced
February 1963	830 class diesel electric locomotives introduced
1970	Standard gauge line across Australia completed
1975	Railways transferred to Commonwealth; managed from Port Augusta
19 August 1977	Steamtown Peterborough Railway Preservation Society formed
18 April 1981	First tourist train ran to Eurelia
1986	Steamtown assets transferred to District Council
1988	All northern regional railway lines closed
25 May 2002	Peterborough Rail Heritage Museum opened
29 November 2009	Steamtown Heritage Rail Centre officially opened



Between 1997 and 2000, Peterborough blacksmith Colin Campbell built these scale model locomotives which have been placed at the main entrances to the town [Photos: Richard Venus]

Appendix 4: SA Standard Gauge Railways



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Malcolm Thompson

John Brougham

Sally Kent, District Council of Peterborough

Jeff Noble for permission to use material from the Lionel Noble collection

National Railway Museum, Port Adelaide

Rick Cavaggion, Light Image Productions

National Trust, Port Pirie